AUTHOR INDEX TO JOURNAL

The reference number in parentheses refers to the *monthly* number of the *Journal;* the number following this is the page number. The letter O or D preceding reference number indicates that the articles are Original (O) or the material is a Discussion (D).

A list of abbreviations used in the Index is found on page 1309.

VOLUME 6

Anderson, R. J. Metallurgical requirements of refrac., O (10) 1090.

Arnold, H. C. The polarizing microscope as an aid in feldspar standardization, O (2) 409; Rapid means for detn. of quartz content, D (6) 704, 705.

Arnold, R. E. An elec. fur. for vitreous enameling, D (10) 1037–1039.

Ashley, G. H. The fire brick mat. of Pa., O (7) 837.

Audley, J. A. The Ceram. Soc. (Eng.), O (1) 176.

Badger, A. E. See Spencer, C. D.

Bales, C. E. The behavior of fire brick in malleable-iron fur. bungs, D (12) 1241.

Beecher, M. F. Developments in the manuf. of refrac. of fused alumina, O (1) 292.

Bennett, A. L. See Wilson, H.

Berger, E. B. See Emley, W. E.

Binns, C. F. Clay as a medium through which ed. ideals may be presented, D (6) 769; N. Y. State School of clay-working and ceram., O (1) 90.

Blake, A. E. Cold clean artificial gas and a discussion upon the general properties of gaseous fuels, O (7) 808; D (7) 826–28, 830.

Bleininger, A. V. Ceram. invest. conducted by the States and the Federal Govt., O (1) 145; Glass pots and tank blocks, O (1) 248; Note on the ht. distribution in updraft kilns, O (11), 1134.

Bole, G. A., and Stull, R. T. Use of sedimentary kaolins of Ga. in white wares, O (7) 854; See Stull, R. T.

Booze, M. C., and Klein, A. A. A rapid means for the detn. of quartz content of feldspar, O (6) 698.

Boudreau, J. C. Clay as a medium through which educational ideals may be effectively presented, O (6) 763; D (6) 769.

Bouton, G. I. Refrac. for stokers, O (11) 1190.

Bridge, L. D. An elec. fur. for vitreous enameling, D (10), 1038.

Brown, G. H. The Ceram. Dept. at Rutgers Coll. and the State Univ. of N. J., O (1) 93.

Brown, L. H. Fuel oil as applied to periodic updraft kilns in the manuf. of high tension elec. porcelain, O (2) 462.

Budnikoff, P. P., and Shilov, E. A. The chemistry of the terpene medium for ceram. liquid gold, O (9) 1000.

Buell, W. C. Some vital factors in reduction of fuel costs, O (12) 1224; D (12) 1226.

Bunting, E. N. An elec. fur. temp. regulator, O (12) 1209.

Burchfiel, B. M. Refrac. clays of the Alberhill, Calif. deposits, O (11) 1167.

Burke, G. W. A rapid method for prepg. a silicate rock flux for dehydration, O (6) 761.

Burt, S. G. Rookwood Pottery Co., O (1) 232.

Campbell, R. M. Some investigations on kiln burning, O (8) 886.

Carder, F. Artistic glassware, O (1) 228.

Chapman, W. B. Producer progress during the past quarter century, O (1) 253; Recuperative fur. for the glass industry, O (1) 258; Some vital factors in reduction of fuel costs, D (12) 1226.

Christopher, A. B. Diaspore clay of Ark. and Mo., D (3) 508.

Clark, H. H. An elec. fur. for vitreous enameling, D (10) 1036–1039.

Cobb, J. W. See Houldsworth, H. S.

Comstock, G. F. Some causes of blistering of sheet steel metal enamels, O (8) 873.

Collins, E. F. Vitreous enameling with elec. ht., O (7) 794.

Cox, P. E. A better design for a jug mold clinch, O (12) 1230; Copper reds for the amateur, O (5) 685; Dept. of Ceram. Eng. of Iowa State Coll., O (1) 104.

Cox, P. E., and Moulton, D. A. A new raw mat. for ceram. uses, O (8) 937.

Crane, E. J. A brief hist. of "Chemical Abstracts," O (1) 141.

Crawford, J. L. High alumina refrac., O (1) 290.

Danielson, R. R., and Frehafer, M. K. The effect of some substitutes for tin oxide on the capacity of white enamels for sheet steel, O (5) 634.

Danielson, R. R., and Sweely, B. T. The reln. between compn. and properties of enamels for sheet steel, O (10) 1011.

Darby, W. J. See O'Harra, B. M.

Darling, C. F. A short hist. of "Rock Products," O (1) 140.

Davis, F. W. Outline of refrac. requirements for the iron and steel indus., O (11) 1183.

Dawes, E. S. Some early experiences in enameling cast iron, O (1) 234.

Douda, H. W. See Schurecht, H. G.

Dressler, C. The artistic needs of modern faience, O (2) 398.

Emley, W. E., and Berger, E. B. Panel tests of lime plaster, O (9) 1007.

Endell, K. H., and Rieke, R. The progress of tech. ceram. sci. in Germany since the death of Herman Seger (1893), O (1) 196.

Ferguson, R. F. See Howe, R. M.

Finn, A. N. See Geller, R. F.

Fitzgerald, G. Cold clean artificial gas, D (7) 826, 829.

Flint, F. C. Feldspar for glassmakers, O (2) 413.

Foster, H. D. Capping for compression specimens, O (5) 623; Effect of grog addn. on fire resist. of hollow tile, O (6) 748.

Frederick, F. F. School of indus. art, City of Trenton, O (1) 115.
Freeman. An elec. fur. for vitreous enameling, D (10) 1038.
Frehafer, M. K. See Danielson, R. R.
French, M. M. The problem of the turquoise alk. glaze, O (2) 405.

Garve, T. W. Construction features of importance to clay plants, O (9) 961.
Gates, W. D. Influence of the Amer. Ceram. Soc. in the terra cotta indus., O (1) 231.
Gavin, G. P., and Hartford, F. M. A recent installation of a Harrop tunnel kiln, O (12) 1214.
Geiger, C. F. The history of the development of silicon carbide refrac., O (1) 301.
Geller, R. F. Progress report on specif. for refrac., O (10) 1098.
Geller, R. F., and Finn, A. N. Further studies on cast glass pots, O (8) 865.
Gillett, H. W. Met. requirements of refrac. for furnaces melting copper alloys, O (4) 596.
Gorton, A. F. See Schwartz, H. A.
Granger, A. A. The ceram. indus. of France since the end of the 19th century, O (1) 205.
Greaves-Walker, A. F. Diaspore clays of Ark. and Mo., D (3) 507, 508.
Greaves-Walker, A. F., and Kier, S. M. The suitability of the tunnel kiln for burning refrac., O (8) 891.
Greer, W. R. An elec. fur. for vitreous enameling, D (10) 1037.

Hain, V. A. An elec. fur. for vitreous enameling, D (10) 1035–37; 1038–39.
Hall, F. P. Effect of hydrogen ion concn. upon clay suspensions, O (9) 989.
Hammer, J. M. "The Glass Worker" and "China, Glass and Lamps," O (1) 132.
Handy, J. O. The Pittsburgh Testing Lab. in the ceram. field, O (1) 173.
Hardinge, H. The continuous system of grinding ceram. mat., O (3) 548.
Harlow, J. E. Refrac. for flat arches, O (11) 1195.
Harrington, R. F. Value of uniform fire brick from standpoint of the consumer, O (11) 1193.
Harrison, T. R. Temperature control of Dressler tunnel kiln, O (11) 1128.
Hartford, F. M. See Gavin, G. P.
Heath, F. T. See Wilson, H.
Horning, R. A. Experiences with Dutch kilns, O (9) 958.
Hotchkiss, W. O. Geology of the Baraboo ganister deposits, O (11) 1160.
Hottinger, A. F. Looking backward in the terra cotta field, O (1) 306.
Houldsworth, H. S., and Cobb, J. W. The reversible thermal expansion of refrac. mat., O (5) 645.
Howe, R. M. Diaspore clay of Ark. and Mo., D (3) 507–9; Fire clay refrac., O (1) 275; A study of the slag test, O (2) 466; Testing of refrac., O (1) 296.
Howe, R. M., and Ferguson, R. F. Compn. and properties of diaspore, bauxite and gibbsite, O (3) 496.
Howe, R. M., Phelps, S. M., and Ferguson, R. F. The action of slag upon silica, magnesite, chrome, diaspore and fire clay refrac., O (4) 589.
Hudson, C. J. How to install and operate a fuel oil system, D (2) 459.

Insley, H. A study of the origin and cause of stones in glass, O (6) 706.

Jaeger, F. G. An elec. fur. for vitreous enameling, D (10) 1035; Sandblast castings to be enameled, O (9) 976.

Kier, S. M. See Greaves-Walker, A. F.
Kimes, A. W. Hist. of the "National Glass Budget," O (1) 138; Impt. developments in the glass indus., O (1) 250.
King, R. M. See Watts, A. S.
Kinney, S. P. See Perrott, G. St. J.
Kirk, H. S. Clay as medium through which ed. ideals may be presented, D (6) 769.
Klein, A. A. A rapid means for detn. of quartz content, D (6) 704, 705; See Booze, M. C.
Klinefelter, T. A., and Parsons, F. C. Shop notes-plaster shop, O (7) 783; Short cuts in miter cutting, O (7) 786.
Kondo, S. Development of ceram. tech. and sci. in Japan, O (1) 212.
Krak, J. B. "The Glass Industry," O (1) 137.
Kriege, H. F. Effect of time and temp. upon the chlorination of flint fire clay, O (7) 850.
Krusen, I. A. Diaspore clays of Ark. and Mo., D (3) 505.
Kruson, J. H. Insulation of periodic kilns, O (10) 1069.

Lalor, J. D. How to install and operate a fuel oil system, O (2) 448.
Lapp, J. S. High voltage porcelain insulators in U. S. chronology, O (1) 315.
Lenchner, T. Glass decorators' palette and its prepn., O (10) 1040.
Littleton, J. T., Jr. The relative magnitude of radiation and convection htg. in a muffle kiln, O (7) 771.
Lowrance, R. E. See Parmelee, C. W.

Malinovsky, A. Method of cooling enamel by compressed air, O (9) 972.
Manion, L. W. An elec. fur. for vitreous enameling, D (10) 1037.
Manor, J. W. A rapid means for detn. of quartz content, D (6) 704.
Manson, M. E. The use of bentonite for suspending enamels, O (7) 790.
Martin, J. D. Automatic kiln stokers, O (10) 1044.
Mawby, P. Scheduling in a terra cotta plant, O (2) 440.
McCauley, G. V. Influence of alkalies and alkaline earths on fusion temps. of the different types of refrac. clays, D (11) 1152.
McDougal, T. G. The story of spark plug progress, O (1) 316.
McDowell, J. S. Chrome refrac., O (1) 277; Diaspore clay of Ark. and Mo., D (3) 508; Influence of alkalies and alk. earths on fusion temps. of the different types of refrac. clays, D (11) 1151; Magnesite refrac., O (1) 280.
McGee, E. N. Silica cement, O (8) 896; Tech. development in the field of silica refrac. during the past twenty-five years, O (1) 285.
Minton, R. H. Sanitary ware manuf. in Amer., O (1) 319.
Montgomery, R. J. Ophthalmic glass, a new Amer product, O (11) 1141.
Moulton, D. A. See Cox, P. E.
Munsell, A. E. O. Simple method of measg. color, O (7) 777.

Navias, L. N. Meas. of ht. absorbed and evolved by clays during firing and burning, O (12) 1268.
Nickerson, F. P. The value of screen analysis in ceram., O (3) 563.

Oakley, W. W. Cold clean artificial gas, D (7) 827, 828.
O'Harra, B. M. Met. requirements for refrac. in the electrothermic met. of zinc, O (11) 1180.
O'Harra, B. M., and Darby, W. J. The disintegration of refrac. brick by carbon monoxide, O (8) 904.

Palmer, L. A. Tests on resistive qualities of soda-lime glasses to water, O (4) 579.
Parmelee, C. W. History of ceram. ed. at Univ. of Ill., O (1) 97.
Parmelee, C. W., and Lowrance, R. E. Some notes on the meas. of translucency of ceram. bodies, O (5) 630.
Parsons, F. C. See Klinefelter, T. A.
Pence, F. K. Tech. development in the white-ware indus., O (1) 308.
Perrott, G. St. J., and Kinney, S. P. The meaning and microscopic meas. of av. particle size, O (2) 417.
Phelps, S. M. See Howe, R. M.
Pilcher, R. G. Inst. of Chemistry Glass Research Com. 1914–1922, O (1) 186.
Poste, E. P. The relative action of acids on enamel—V, O (6) 689.
Pyne, F. R. Met. requirements of refrac. in copper smelting and refining, O (11) 1188.

Quine, E. Glass Research Assn., O (1) 188.

Randall, J. E. "The Clay-Worker," a potential factor in the up-building of the ceram. indus., O (1) 120.
Randall, T. A. The influence and achievements of the Natl. Brick Manuf. Assn. along technical lines, O (1) 224.
Rhead, F. H. Clay as medium through which ed. ideals may be presented, D (6) 769; Some notes on hist. and modern decorative processes, O (2) 356.
Rice, B. A. Deformation studies of silicates and aluminum silicates of the alkalies, O (3) 525.
Richardson, W. D. Producer gas for burning refrac., O (7) 799.
Rieke, R. See Endell, K.
Roadhouse, R. An elec. fur. for vitreous enameling, D (10) 1038.
Roberts, F. G. An elec. fur. for vitreous enameling, D (10) 1036–37.
Rose, C. I. Proposed method for studying the attack of molten slags and glasses upon refrac. materials, O (12) 1242.

Saborsky, A. D. Glass wool heat insulation in Europe, O (5) 674.
Saxton, C. The use of wood in gas producers, O (12) 1219.
Scholes, S. R. Substituting fuel oil for producer gas in a continuous glass tank, D (10) 1055.
Schurecht, H. G. Clay sewer pipe manuf. I. Magnetic sepn. of iron bearing minerals from clays, O (5) 615; Clay sewer pipe manuf. II. The effect of variable alumina, silica, and iron oxide in clays and some properties of salt glazes, O (6) 717; Clay sewer pipe manuf. III. Ht. distribution in sewer pipe kilns, O (7) 831; An automatic direct reading lab. scale for weighing briquettes, O (3) 491; Tech. developments in dolomite refrac., O (1) 278;
Schurecht, H. G., and Douda, H. W. The properties of some clay-like mat. of the bentonite type, O (8) 940; The behavior of fire brick in malleable-iron fur. bungs, O (12) 1232.
Schwartz, H. A., and Gorton, A. F. The requirements of fire brick suited to malleable practice, O (10) 1094.
Schwier, C. An elec. fur. for vitreous enameling, O (10) 1032; D (10) 1035–39.
Scott. D (10) 1039.
Sheppard, M. Zirconia refrac., O (1) 294.
Shilov, E. A. See Budnikoff, P. P.
Sortwell, H. H. The effect of variation in firing on the phys. properties of vitreous china bodies, O (8) 915; Impact tests on tableware,
Spencer, C. D., and Badger, A. E. A skiagraphic study of fabricated glass articles, D (12) 1228. O (2) 349.
Sproat, I. E. Effect of ht.-treatment and compn. of semi-porcelain bodies on crazing, O (3) 510.
Spurrier, H. Further studies of porcelain glazes maturing at high temps., D (11) 1126–27.
Staley, H. F. Developments in enameling tech. during the past twenty-five years, O (1) 240; An elec. fur. for vitreous enameling, D (10) 1038.
Steinhoff, F. L. "Brick and Clay Record," its hist., O (1) 128; The log (twenty-five years) of progress in the brick and tile indus., O (1) 262.
Stone, G. C. Improvements in the manuf. of zinc refrac. during the last twenty-five years, O (1) 299.
Stout, W. The flint clay situation in Ohio, O (11) 1153.
Stull, R. T., and Bole, G. A. Refrac. possibilities of some Ga. clays, O (5) 663; Washing tests of Georgia clays, O (6) 730; See Bole, G. A.
Swanson, C. O. Laterite, the origin, distribution and compn. meaning of laterite, O (12) 1248.
Sweely, B. T. An elec. fur. for vitreous enameling, D (10) 1035, 1037, 1038; See Danielson, R. R.

Taylor, M. A. Fuel oil as adapted to the chambered continuous kiln, O (10) 1056.
Taylor, S. The ceram. trade and its oldest paper, O (1) 118.
Thompson, F. S. Substituting fuel oil for producer gas in a continuous glass tank, O (10) 1050.
Thornberry, M. H. Method for analyzing diaspore clays, O (12) 1261.
Thwing, C. B. Cold end compensation on a pyrometer system, O (10) 1062.
Tillotson, E. W. Twenty-five years' progress in the glass indus., O (1) 244.
Totten, G. O., Jr. Clay as medium through which ed. ideals may be presented, D (6) 769.
Treischel, C. C. A historical sketch of the elec. porcelain indus. in Amer., O (1) 312.
Turk, R. An elec. fur. for vitreous enameling, D (10) 1038.
Turner, W. E. S. The Soc. of Glass Tech., O (1) 181; Teaching and research in glass tech. at the Dept. of Glass Tech., Univ. of Sheffield, O (1) 183.

Twells, R. Jr. Further studies of porcelain glazes maturing at high temps., O (11) 1113; D (11) 1126–27; Tests on some sagger clays and bodies, O (9) 949.

Vail, J. G. Silicate of soda in the ceram. indus., O (4) 610.
Vollrath, C. A. W. Early history of enameling in the Vollrath Co., O (1) 237.

Underwood, C. A. The anal. of refrac., O (12) 1263.

Warwick, C. L. Activities of the A. S. T. M. in the field of ceram., O (1) 219.
Washburn, E. W. Research councils, O (1) 156.
Watts, A. S. Dept. of Ceram. Eng., Ohio State Univ., O (1) 88; Influence of alkalies and alk. earths on fusion temps. of the different types of refrac. clays, O (11) 1150; A rapid means for detn. of quartz content, D (6) 704.
Watts, A. S., and King, R. M. The transfer of ht. through refrac. and its detn., O (10) 1075.
Weaver, R. A. An elec. fur. for vitreous enameling, D (10) 1039.
Weidlein, E. R. Ceram. invest. at the Mellon Inst. of Indus. Research, O (1) 167.
Welch, F. C. Effects of accelerators and retarders on calcined gypsum, O (11) 1197.
Wells, R. D. An elec. fur. for vitreous enameling D (10) 1035.
Wiester, S. Air cooled *vs.* water quenched enamels, O (9) 973.
Wikoff, A. G. "Chemical and Metallurgical Engineering," O (1) 134; Refrac. requirements for oil refining, O (11) 1176.
Wilcox, B. Influence of alkalies and alk. earths on fusion temps. of the different types of refrac. clays, D (11) 1152.
Williams, A. E. The mech. strength of glazing glass, O (9) 980.
Williams, C. E. Requirements of refrac. for elec. fur., O (6) 753.
Williams, W. S. Effect of various sizes of grog particles on clay pots, O (11) 1148.
Williamson, J. W. Brit. Scien. Instrument Research Assn., O (1) 191.
Wilson, H. The Ceram. Eng. Dept. of the Univ. of Wash., Seattle, O (1) 110.
Wilson, H., Bennett, A. L., and Heath, F. T. Preliminary rept. on residual kaolin and feldspar in the Pacif. N. W., O (3) 475.
Worcester, W. G. Canada's first ceram. school: Univ. of Saskatchewan, O (1) 107.
Wysor, D. C. Diaspore clay of Ark. and Mo., O (3) 501; D (3) 504.

SUBJECT INDEX TO JOURNAL

Accelerators and retarders effect of on calcined gypsum, (11) 1197.
Air-cooled enamels, (9) 972.
Ajax-Wyatt elec. fur., (4) 605.
Albright, D. K., (1) 252.
Alexander, Geo. E., (1) 189.
Alkalies and alkaline earths, their influence on fusion temp. of different types of refrac. clays, (11) 1150.
Allison, L. R. W., sketch of, (1) 56.
Alumina, fused, use of in refrac., (1) 292.
refrac., (1) 290.
reversible thermal expansion of, (5) 649.
Aluminum industry, requirements of refrac. for, (10) 1090.
silicates, deformation studies of, (3) 524.
American Ceramic Society, origin of, (1), 10.
history of, (1), 23.
American Chemical Society, Journal of, (1) 143.
Analysis of clay and silica cements with fusion points, (8) 900.
of diaspore and bauxite. (3) 498; *ibid.*, (3) 503.
a rapid method for prepg. silicate rock flux for dehydration, (6) 761.
of refrac., (12) 1263.
screen value of, (3) 563.
of separates of Georgia clays, (6) 742.
Analyzing method for diaspore clay, (12) 1261.
Antimony in enamels, (1) 242.
Apparatus for rapid method for prepg. silicate rock flux for dehydration, (6) 761.
for whirlpool classifier, (6) 731.
Architectural pottery, (2) 394.
Art, clay as a medium through which ed. ideals may be effectively presented, (6) 763.
simple method of measuring color, (7) 777.
Artistic glassware, (1) 228.
Ashley, H. E., sketch of, (1) 47.
Association, N. B. M. A., (1) 224.

Baily electric brass furnaces, (4), 600.
Bain, H. Foster, (1) 148.
Baraboo ganister deposits geology of, (11) 1160.
Barringer, L. E., sketch of, (1) 40.
Bauxite and bauxitic clays, (5) 665.
compn. of Ark. and Ala., (12) 1259.
diaspore and gibbsite compn. and properties of, (3) 496.
relationship to laterite, (12) 1257.
Bauxitic clay, thermal expansion of, (5) 647.
Beatty, Nevada, clay, a new raw mat. for ceramic uses, (8) 939.
Beecher, M. F., sketch of, (1) 54.
Bentonite chem. anal. of, (8) 942.
the properties of some claylike mat., (8) 940.
the use of, for suspending enamels, (7) 790.
Berdel, Eduard, (1), 198.
Binns, C. F., sketch of, (1) 23.
Bleininger, A. V. sketch of, (1) 24.
Blizard, John, (1) 154.
Blistering, causes of in sheet steel enamels, (8) 873.
Bloomfield, C. A., (1) 87.
Bole, Geo. A., (1) 154.
Books, ceramic, ref. list of, (1) 322.
Bowman, O. O., 2nd, sketch of, (1) 58.
Brick, A. S. T. M., (1) 219.
and Clay Record, (1) 128.
National Manufacturers Association, (1) 224
portable conveyors for unloading from kilns, (1) 271.
setting machines, first development in, (1) 264.
storage battery lift truck for handling, (1) 273.
Bricks, old hand methods, (1) 269.
British Scientific Instrument Research Association, (1) 191.
Brown, Charles W., (1) 251.
Brown, Geo. H., sketch of, (1) 41.
Bureau of Mines, (1) 152.
of Standards, (1) 147.
Burning (see firing).
refrac. with producer gas, (7) 799.
some invest., (8) 886.
Burt, S. G., sketch of, (1) 24.
By-product coke industry, silica brick used in, (1) 287.

Calorimeter for measg. ht. absorbed and evolved by clays, (12) 1281.
Calorized tubes in recuperators, (12) 1225.
Cannan, W. J., sketch of, (1) 50.
Capping for compression specimens, (5) 623.
Carbon effect on refrac., (11) 1182.
monoxide, disintegration of refrac. brick by, (8) 904.
and sulphur in clays, ht. effect of, (12) 1276.
Carborundum brick, effect of carbon monoxide on, (8) 913.
reversible expansion of, (5) 649.
Cast glass pots, (8) 865.
Cement, silica, (8) 896.
Cements, zirconia, (1) 295.
Ceramic books, ref. list of, (1) 322.
ed. schools, Japan, (1) 214.
industries, classification of, (1) 68.
description of, (1) 75.
growth of, (1) 71.
progress during the war, (1) 81.
in France, (1) 205.
investigations by the State and Federal government, (1) 146.
lit. Ger., (1) 204.
research in France, (1) 211.
Japan, (1) 213.
schools, (1) 84.
in Ger., (1) 203.
sculpture, (2) 390.
Society (English), (1) 176.
Ger., (1) 197.
Japan, (1) 213.
tech. in Japan, (1) 212.
Ceramics, definition of, (1) 67.
Charter Members, (1) 23–35.
Chemical Abstracts, (1) 141.
analysis and fusion points of fire clay and silica cements, (8) 900.
of refrac., reln. to properties of refrac., (10) 1110.
of separates of Ga. clays obtained in whirlpool separator, (6) 742.
compn. of Baraboo ganister, (11) 1165.
of Ga. clays, (5) 665.
reln. of refractoriness to, (5), 665.
and Metallurgical Engineering, (1) 134.
China, Glass and Lamps, (1) 132.
vitreous bodies, effect of variation in firing on properties of, (8) 915.

Chlorination of flint fire clays, effect of time and temp. upon, (7) 850.
Chrome brick, effect of carbon monoxide on, (8) 913.
refrac., (1) 277.
action of slags upon, (4) 589.
Clare, R. L., sketch of, (1) 55.
Clark, W. M., sketch of, (1) 58.
Classifier, whirlpool, (6) 731.
Clause, W. L., (1) 252.
Clay, flint situation in Ohio, (11) 1153.
as a medium through which ed. ideals may be effectively presented, (6) 763.
plants, construction features of importance, (9) 961.
products, heavy, Japan, (1) 214.
suspensions, effect of hydrogen ion concn. upon, (9) 989.
settling of, (9) 992.
Clays, flint, chlorination of, (7) 850.
Ga. washing test of, (6) 730.
of Pa., (7) 842.
refrac., Alberhill, Calif., (11) 1167.
Clayworker, (1) 120.
Coke oven, thermal expansion of silica brick after use in, (5) 655.
Colloid, effect of hydrogen ion concn. upon clay suspensions, (9) 989.
Color, simple method of meas., (7) 777.
Compression strength of enamels, (10) 1017.
Copper red, for the amateur, (5) 685.
glazes, (5) 685.
Cornwall stone, a new raw mat. substitute for, (8) 939.
Cox, Paul E., sketch of, (1) 105.
Cramer, Eduard, sketch of, (1) 199.
Crazing on semi-porcelain, effect of ht. treatment and compn., (3) 510.
Crockery and Glass Journal, (1) 118.

Danielson, R. R., sketch of, (1) 52.
Decorative processes, architectural pottery, (2) 394.
incised, etched and carved, (2) 358.
luster, (2) 389.
modeled relief, (2) 360.
monochromes, (2) 384.
notes on, historical and modern, (2) 356.
overglaze, (2) 390.
polychrome glaze, (2) 376.
sculpture, (2) 390.
slip, (2) 363.
underglaze, (2) 367.
Decorators' palette and its prepn. for glass, (10) 1040.
Definition of ceram., (1) 67.
Deformation studies of silicates and aluminium silicates of the alkalies, (3) 525.
Detroit elec. fur., (4) 602.
Devitrification, stones in glass, (6) 707.
Diaspore, bauxite and gibbsite, compn. and properties of, (3) 496.
Diaspore clays, of Ark. and Mo., (3) 501.
method for analyzing, (12) 1261.
of Mo., (3) 505.
refrac. action of slags upon, (4) 589.
Dissociation of N. Car. kaolin, press. developed by, (12) 1275.
Dolomite refrac., (1) 278.
Drain tile, A. S. T. M., (1) 221.
Dressler tunnel kiln (Bradford), (1) 265.
temp. control of, (11) 1128.
Dutch kilns, experience with, (9) 958.

Educational ideals effectively presented through clay as a medium, (6) 763.
Electric fur., Ajax-Wyatt, (4) 605.
Baily, (4) 600.
Detroit, (4) 600.
refrac., requirements for, (6) 753.
temp. regulator, (12) 1209.
ht. for vitreous enamel, (7) 794.
for vitreous enameling, (10) 1030.
Electrical porcelain, historical sketch of, (1) 312.
Elutriation, comparison with microscopic meas., (2) 433.
Enamel, Division, formation of, (1) 243.
fish scaling, (1) 244.
in Japan, (1) 217.
relative action of acids on, (6) 689.
sandblasting castings, (9) 976.
Enameled plates, resist. of to acetic acid, (10) 1027.
resist. to impact, (10) 1021.
Enameling, automatic dredge, (1) 241.
cast iron, (1) 204.
decorative, of cast iron, (1) 242.
development of tech. of, (1) 240.
elec. fur. for, (10) 1030.
with elec. ht., (7) 794.
machine molding of bath tubs., (1) 241.
Vollrath Co., (1) 237.
Enamels, antimony in, (1) 242.
compressive strength of, (10) 1017.
cooling by compressed air, (9) 972.
effect of some substitutes for tin oxide on opacity of white, for sheet steel, (5) 634.
expansivity of, (10) 1017.
for sheet steel, the reln. between compn. and properties of, (10) 1011.
sheet steel, causes of blistering, (8) 873.
the use of bentonite for suspending, (7) 790.
Endell, K. H., sketch of, (1) 199.
Experiment Stations, Ger., (1) 203.
Expansivity of enamels, (10) 1017.

Faience, artistic needs of, (2) 398.
Farnham, D. T., sketch of, (1) 50.
Farren, Mabel C., sketch of, (1) 51.
Faugeron, Gabriel, (1) 205.
Feldspar deposits, Pacific Northwest, (3) 482.
for glass makers, (2) 413.
rapid means for detn. of quartz content, (6) 698.
specif. for glass, (2) 414.
standardization use of polarizing microscope, (2) 409.
Fieldner, A. C., (1) 154.
Fire brick in malleable-iron fur. bungs, (12) 1232.
requirements of, for malleable practice, (10) 1094.
Fire clay refrac., (1) 275.
action of slags upon, (4) 589.
reversible thermal expansion of, (5) 648.
Firing (see burning).
and cooling, meas. of ht. absorbed and evolved, (12) 1268.
effect of variation of on phys. properties of vitreous china bodies, (8) 915.
kiln, some investigations of, (8) 886.
Fiske, J. Parker B., sketch of, (1) 25.
Flint clay situation in Ohio, (11) 1153.
Flint fire clays, chlorination of, (7) 850.
of Pa., (7) 842.

phys. properties of, (7) 848.
Ford, J. B., (1) 251.
France, ceramic industry of, (1) 205.
ceramic publications, (1) 211.
research, (1) 211.
porcelain, (1) 209.
pottery, (1) 206.
refrac., (1) 206.
stoneware, (1) 208.
Frink, Robt. L., (1) 189.
Fuel costs, some vital factors in reduction of, (12) 1224.
Fuel gases, general properties of, (7) 808.
Fuel oil, as adapted to the chambered continuous kiln, (10) 1056.
how to instal and operate a system, (2) 448.
in periodic kiln, (2) 462.
substituting for producer gas in a continuous glass tank, (10) 1050.
system on Harrop tunnel kiln, (12) 1217.
Fuel, wood for, in gas producer, (12) 1219.
Furnace, elec. for vitreous enameling, (10) 1030.

Ganister, geology of the Baraboo deposits, (11) 1160.
in Pa., (7) 845.
Gas, control in Dressler tunnel kiln, (11) 1128.
producer, Chapman, (1) 257.
Hughes, (1) 254.
Morgan, (1) 256.
use of wood in, (12) 1219.
Wood, (1) 255.
progress during past quarter century, (1) 253.
Gates, W. D., sketch of, (1) 25
Geijsbeek, S., sketch of, (1) 26.
Geology of the Baraboo ganister deposits, (11) 1160.
Georgia clays, refrac. properties of, (5) 662.
washing test of, (6) 730.
sedimentary kaolins use of, (7) 854.
German ceram. lit., (1) 204.
Society, (1) 197.
Germany, progress of ceram. sci. in, (1) 196.
Gibbsite, bauxite and diaspore compn. and properties of, (3) 496.
Glass advance in chem. tech. of, (1) 246.
articles, skiagraphic study of, (12) 1228.
clear crown, (11) 1141.
decorator's palette and its prepn., (10) 1040.
development of mech. appliance for, (1) 246.
flint, (11) 1142.
glazing mech. strength of, (9) 980.
industry, (1) 137.
important developments in, (1) 250.
recuperative fur. for, (1) 258.
twenty-five yrs. progress, (1) 244.
in Japan, (1) 217.
makers, feldspar for, (2) 413.
ophthalmic, a new Amer. product, (11) 1140.
origin and cause of stones in, (6) 706.
pots, cast, (8) 865.
compn. of, (8) 867.
and tank blocks, (1) 248.
Research Assn., (1) 188.
tank, substituting fuel oil for producer gas in, (10) 1050.
wool heat insulation in Europe, (5) 676.
Glass Worker, The, (1) 132.
Glasses, goggle, (11) 1144.
tests of resistive qualities of soda-lime, (4) 579.
Glassware, artistic, (1) 228.
Glaze, salt, effect of variable alumina, silica and iron oxide in clays on properties of, (6) 717.
turquoise alkaline, (2) 405.
Glazes, porcelain maturing at high temp., (11)1113.
for semi-porcelain, (3) 514.
Glazing glass, mech. strength of, (9) 980.
Gold, the chemistry of the terpene medium for ceram. liquid, (9) 100.
Gorton, A. F., sketch of, (1) 59.
Gorton, E. E., sketch of, (1) 26.
Grain size, microscopic meas. of av., particle size, (2) 417.
Granger, A. A., (1) 205.
Greaves-Walker, A. F., sketch of, (1) 43.
Greenough, M. B., picture of, (1) 54.
Grinding ceram. mat. continuous system of, (3) 548.
Grog for cast glass pots, (8) 867.
effect of additions on fire resist. of hollow tile, (6) 748.
particles, the effect of various sizes of on clay pots, (11) 1148.
for saggers, (9) 951.
Gypsum, calcined, effect of accelerators and retarders on, (11) 1197.

Handy, J. O., picture of, (1) 173.
Hardinge Mills, continuous system of grinding, (3) 548.
Harvey, F. A., sketch of, (1) 55.
Heat absorbed and evolved by clays during firing and cooling, (12) 1268.
distribution in updraft kilns, note on, (11) 1134.
in sewer pipe kilns, (7) 831.
transfer and its detn., (10) 1075.
Heats of reaction of clays at high temps., (12) 1272.
Heavy clay products, construction features, of importance, (9) 961.
Japan, (1) 214.
twenty-five years' progress in, (1) 262.
Hecht, Herman, (1) 200.
Heinecke, A., (1) 196.
Hepplewhite, J. W., sketch of, (1) 60.
Hice, R. R., picture of, (1) 40.
History of the American Ceramic Society, (1) 2.
Hollow Building Tile, A. S. T. M., (1) 223.
Hollow tile, effect of additions on fire resist., (6) 748.
Hope, Herford, sketch of, (1) 46.
Hostetter, J. C., sketch of, (1) 54.
Hottinger, A. F., sketch of, (1) 46.
Howe, R. M., sketch of, (1) 45.
Humphrey, H. P., sketch of, (4) 49.
Hursh, R. K., sketch of, (1) 44.
Hull, W. A., sketch of, (1) 57.
Hydrogen ion concn. measurement of, (9) 989.
effect of concn. upon clay suspensions, (9) 989.

Illinois, Univ. of, ceram. dept., (1) 97.
Impact, resist. of enameled plates to, (10) 1021.
Impact test on table ware, (2) 349.
Institute of Chemistry, Glass Research Comm., (1) 186.
Insulation, glass wool, (5) 676.
of periodic kilns, (10) 1069.
Iowa State College, ceram. dept., (1) 104.
Iron bearing minerals, magnetic sepn. from clays, (5) 615.

Jaeger, F. G., sketch of, (1) 60.
Japan, ceramic, research, (1) 213.

Society, (1) 213.
tech., (1) 212.
Japan, ed. institutions, (1) 214.
enamel in, (1) 217.
glass in, (1) 217.
heavy clay products, (1) 214.
pottery, (1) 216.
refrac., (1) 215.
Johnston, J. R., (1) 250.
Jour. of the Amer. Chem. Soc., (1) 143.
Jour. of Indus. and Eng. Chemistry, (1) 142.
Journals, Ceram., (1) 118.

Kaolin, residual, Pacific Northwest, (3) 475.
Kaolins, sedimentary, Ga. use of in whitewares, (7) 854.
test of, Pacific Northwest, (3) 485.
Keppeler, G., (1) 200.
Kerr, C. H., sketch of, (1) 57.
Kiln, automatic stokers, (10) 1044.
burning investigations, (8) 886.
chambered, fuel oil adapted to, (10) 1056.
Dressler tunnel, temp. control of, (11) 1128.
Harrop tunnel, a recent installation, (12) 1214.
muffle, the relative magnitude of radiation and convection htg. in., (7) 771.
periodic, use of fuel oil in, (2) 462.
updraft, ht. distribution in, (11) 1134.
Kilns, Dutch experience with, (9) 958.
insulation of, (10) 1069.
sewer pipe, ht. distribution in, (7) 831.
tunnel, for burning refrac., (8) 891.
Kimes, A. W., (1) 139.
Kimes, G. B., (1) 139.
Kirk, H. L., sketch of, (1) 52.
Klinefelter, T. A., sketch of, (1) 59.
Koerner, J., (1) 201.
Kraze, F., (1) 201.

Laboratory, weighing scale, automatic direct reading, (3) 491.
Landrum, R. D., sketch of, (1) 47.
Langenbeck, Karl, sketch of, (1) 27.
Laterite, origin, distribution and compn. of, (12) 1248.
Lovejoy, Ellis, sketch of, (1) 27.
Lime plaster, panel tests of, (9) 1007.
Luster, processes, (2) 389.
Lyon, D. A., sketch of, (1) 153.

Magnesia, reversible thermal expansion of, (5) 649.
Magnesite brick, effect of carbon monoxide on, (8) 912.
refrac., (1) 280.
action of slags upon, (4) 589.
Magnetic sepn. of iron bearing minerals in clay, (5) 615.
Malleable practice, the requirements of fire brick suited to, (10) 1094.
Mayer, Ernest, sketch of, (1) 28.
Maynard, T. Poole, sketch of, (1) 59.
McCullough, E. W., (1) 161.
McDowell, J. S., sketch of, (1) 55.
Mechanical strength of glazing glass, (9) 980.
Mellon Institute, (1) 167.
Metallurgical requirements of refrac. for aluminum industry, (10) 1090.
Microscopic measurement compared with elutriation, (2) 433.
of particle size, (2) 417.
Minton, L. H., sketch of, (1) 42.
Mitre cutting, short cuts in, (7) 786.
Mold clinch, a better design for a jug, (12) 1230.
Monro, W. L., (1) 253.
Montgomery, E. T., sketch of, (1) 49.
Moore, R. B., (1) 153.
Mueller, H. C., sketch of, (1) 29.

National Glass Budget, (1) 138.
New York State School of Clay-Working and Ceram., (1) 90.
North Dakota, ceram. dept., (1) 110.
Newcomb College, ceram. dept., (1) 117.

Officers, history of personnel, Amer. Ceram. Soc., (1) 35.
Ohio State University, ceram. dept., (1) 88.
Oil, as adapted to the chambered continuous kiln, (10) 1056.
fuel, how to install and operate, (2) 448.
in periodic kiln, (2) 462.
refining, refrac. requirements, (11) 1176.
substituting for producer gas in a continuous glass tank, (10) 1050.
Opacifiers, in white enamel for sheet steel, (5) 635.
in sheet steel enamel, classification of, by reflecting power, (5) 636.
Ophthalmic glass, a new American product, (11) 1140.
Origin of Amer. Ceram. Soc., (1) 2.
Orton, Edward, Jr., sketch of, (1) 30.

Parmelee, C. W., sketch of, (1) 39.
Pass, James, sketch of, (1) 31.
Pence, F. K., sketch of, (1) 43
Pennsylvania, fire brick mat., (7) 837.
Pilcher, R. G., Institute of Chemistry, Glass Research Comm., (1) 186.
Pittsburgh Testing Lab., (1) 173.
Plaster shop, notes, (7) 783.
Polychrome glaze processes, (2) 376.
Porcelain, elec., historical sketch of indus., (1) 312.
France, (1) 209.
glazes maturing at high temps., (11) 1113.
high voltage insulators, (1) 315.
sanitary, manuf. in Amer., (1) 319.
semi, body compn., (3) 516.
semi, effect of ht. treatment and compn. on crazing, (3) 510.
semi, glaze for, (3) 514.
spark plugs, (1) 316.
Porosity, effect of on thermal expansion of fire clay, (5) 649.
reln. to serviceability of fire brick, (12) 1238.
Poste, E. P., sketch of, (1) 53.
Pots, cast, glass, (8) 865.
clay, the effect of various sizes of particles on, (11) 1148.
Pottery, architectural, (2) 394.
in France, (1) 206.
Japan, (1) 216.
Rookwood, (1) 232.
Producer gas for burning refrac., (7) 799.
cold clean gas, (7) 808.
substituting oil for, in a continuous glass tank, (10) 1050.
Products, value of, (1) 69.
Properties of some clay-like mat. of bentonite type, (8) 940.
Publications, ceramic in France, (1) 211.
Pukall, Wilhelm, (1) 202.
Purdy, Ross C., sketch of, (1) 38.
Purington, D. V., (1) 87.
Pyrometer system, cold end compensation on, (10) 1062.

Quine, Edward, (1) 188.
Quartzite, expansion curve for, (5) 651.

Radiation and convection, relative magnitude of in htg. a muffle kiln, (7) 771.
Randall, J. E., (1) 121.
Randall, T. A., (1) 87.
Recuperators as fuel economizers, (12) 1224.
Red glazes, copper, (5) 685.
Reflection values, detn. of different opacifiers in sheet steel enamels, (5) 640.
Refractories, reln. of chem. compn. to, (5) 665.
Refractory brick, disintegration of by carbon monoxide, (8) 904.
clays of Alberhill, Calif., (11) 1167.
clays of Ga., (5) 662.
clays, influence of alkalies and alkaline earths on fusion temp., (11) 1150.
fire brick mat. of Penn., (7) 837.
mat., the reversible thermal expansion of, (5) 645.
requirements for the iron and steel indus., (11) 1183.
requirements for oil refining, (11) 1176.
slag test, (2) 466.
Refractories, action of slag upon silica magnesite, chrome, diaspore and fire clay, (4) 589.
anal. of, (1) 1263.
A. S. T. M., (1) 222.
chrome, (1) 277.
dolomite, technical developments in, (1) 278.
effect of carbon on, (11) 1182.
fire brick in malleable-iron fur. bungs, (12) 1232.
fire clay, (1) 275.
for flat arches, (11) 1195.
in France, (1) 206.
fused alumina, (1) 292.
geol. of the Baraboo ganister deposits, (11) 1160.
high alumina, (1) 290.
Japan, (1) 215.
magnesite, (1) 280.
mats., method for studying attack of molten slags and glasses upon, (12) 1242.
metallurgical requirements of, in aluminum industry, (10) 1090.
for fur. melting copper alloys, (4) 589.
for metallurgy of zinc, (1) 299.
producer gas for burning, (7) 799.
requirements of in copper smelting and refining, (11) 1188.
requirements for elec. fur., (6) 753.
requirements for in electrothermic metallurgy of zinc, (11) 1180.
requirements of, for malleable practice (10), 1094.
silica, (1) 285.
silicon carbide, (1) 301.
specif. for, (10) 1098.
for stoker, (11) 1190.
suitability of tunnel kiln for burning, (8) 891.
testing of, (1) 296.
transfer of ht. through and its detn., (10) 1075.
value of uniform fire brick from the standpoint of the consumers, (11) 1193.
zirconia, (1) 294.
Research, ceram. Japan, (1) 213.
councils, (1) 156.
Richardson, W. D., sketch of, (1) 32.
Rhead, F. H., sketch of, (1) 51.
Riddle, F. H., sketch of, (1) 43.
Ricke, Reinhold, (1) 202.
Ries, H., sketch of, (1) 32.
Rock Products, (1) 140.
Rockwood, N. C., (1) 140.
Rolfe, C. W., (1) 98.
Rookwood Pottery, (1) 232.
Rutgers College, ceram. dept., (1) 93.

Sagger clays and bodies, (9) 949.
Salisbury, B. E., sketch of, (1) 44.
Salt glazes, effect of variable alumina, silica, iron oxide in clays, (6) 717.
Sandblasting castings to be enameled, (9) 976.
Sanitary ware manufd. in Amer., (1) 319.
Saskatchewan, Univ. of, ceram. dept., (1) 107.
Saxe, C. W., sketch of, (1) 60.
Schools, Ceram., in Ger., (1) 203.
in Japan, (1) 214.
Schurecht, H. G., (1) 172.
Screen anal., value of in ceram., (3) 563.
of Ga. sedimentary kaolins, (7) 856.
Sevres, manuf. of, (1) 209.
Sewer pipe, A. S. T. M., (1) 220.
manuf., (5) 615, (6) 717, (7) 831.
Shale planer, (1) 267.
preliminary crusher, (1) 272.
Shaw, J. B., sketch of, (1) 56.
Silica brick, by product coke ovens, (1) 287.
development in, manuf. of, (1) 288.
effect of carbon monoxide on, (8) 912.
geol. of the Baraboo ganister deposits, (11) 1160.
thermal expansion of, (5) 653.
Silica, cement, (8) 896.
refrac., tech. development in, (1) 285.
action of slag upon, (4) 589.
Silicate of soda in ceram. indus., (4) 610.
Silicates, deformation studies of, (3) 524.
Silicon carbide, refrac., (1) 301.
reversible expansion of, (5) 649.
Silverman, A., sketch of, (1) 61
Skiagraphic study of fabricated glass articles, (12) 1228.
Slag, action of upon silica, magnesite, chrome, diaspore and fire clay refrac., (4) 589.
test of refrac., (2) 466.
Slags, anal. and m. p., (2) 467.
and glasses, method for studying attack of, on refrac. mat., (12) 1242.
Society, Amer., for Testing Mat., (1) 219.
of glass tech.,(1) 181.
Soda-lime glasses resistive qualities, (4) 579.
Spalling losses of fire brick in reln. to deformation under load, (12) 1239.
of fire brick, reln. to service, (12) 1234.
and porosity reln. to serviceability of fire brick, (12) 1235.
and the RO and R_2O_3 ratios in fire brick, (12) 1236.
Spalling, reln. of in firing temps. and fineness of grain of fire clay in, (12) 1240.
Spark plug porcelains, (1) 316.
Specific ht., data for calibrating calorimeter, (12) 1271.
exptl. data necessary for, (12) 1283.
of refrac. mat., (12) 1269.
Specifications, feldspar, (2) 414.
for refrac., (10) 1098.
Spectrophotometric app. for detg. reflection values of opacifiers in sheet steel enamels, (5) 640.
Staley, H. F., sketch of, (1) 41.
Standardization of feldspar, use of polarizing microscope, (2) 409.

Steel, sheet, causes of blistering of enamels on, (8) 873.
the reln. between compn. and properties of enamels for, (10) 1011.
Steger, Walter F., (1) 202.
Stokers, automatic kiln, (10) 1044.
mech. for periodic kilns, (1) 268.
refrac. for, (11) 1190.
Stones, batch, (6) 710.
devitrification, (6) 707.
in glass origin and cause of, (6) 706.
pot or tank, (6) 712.
Stoneware, France, (1) 208.
Stover, Edward C., sketch of, (1) 33.
Stratton, S. W., (1) 148.
Stull, R. T., sketch of, (1) 42.
Sulphur and carbon in clays, ht. effect of, (12) 1276.
Sweely, B. T., sketch of, (1) 45.

Tableware, impact tests on, (2) 349.
Tefft, C. F., sketch of, (1) 54.
Temperature control of temp. in Dressler tunnel kiln, (11) 1128.
regulator for elec. fur., (12) 1209.
Terpene, the chemistry of for medium for ceram. gold, (9) 1000.
Terra cotta indus., (1) 231.
review of, (1) 306.
scheduling in, (2) 440.
Test, rapid method for detg. quartz content of feldspar, (6) 698.
slag, for refrac., (2) 466.
accelerated, (12) 1243.
transfer of ht. through refrac., (10) 1075.
Testing Materials, Amer. Soc. of, (1) 219.
Tests, capping for compression specimens, (5) 623.
compressive strength of enamels, (10) 1017.
control of refrac., (10) 1099.
effect of carbon monoxide on refrac. brick, (8) 907.
endurance of refrac., (10) 1101.
expansivity of enamels, (10) 1017.
on fire brick, (12) 1233.
flint clays of Pa., (7) 848.
Ga. sedimentary kaolins, (7) 856.
impact of enameled plates, (10) 1021.
on tableware, (2) 349.
kiln burning, (8) 886.
meas. of translucency of ceram. bodies, (5) 630.
mech. strength of glazing glass, (9) 980.
for opacifying values in sheet steel enamels, (5) 634.
panel tests of lime plaster, (9) 1007.
of refrac. for specif., (10) 1098.
of resist. of enameled plates to acetic acid, (10) 1027.
on resistive qualities of soda-lime glasses, (4) 579.
service and lab. tests of Ga. clays, (5) 663.
on some sagger clays and bodies, (9) 949.
spectrophotometric app., (5) 640.
suitability of refrac., (10) 1099.
Thermal anal. of N. Car. kaolin, (12) 1274.
expansion in refrac., (5) 645.
expansion, reversible, of refrac. mat., (5) 645.
Tillotson, E. W., sketch of, (1) 46.
Tin oxide, effect of some substitutes for on opacity of enamels for sheet steel, (5) 634.
Translucency of ceram. bodies, meas. of, (5) 630.
Treischel, C. C., sketch of, (1) 56.
Trenton School of Indus. Arts, (1) 115.
Tunnel kilns for burning refrac., (8) 891.
a recent installation of a Harrop, (12) 1214
Turquoise alkaline glaze, (2) 405.

Universities, ceram. courses in, (1) 87.
University of Sheffield glass research in, (1) 183.
Updraft kilns, note on the ht. distribution in, (11) 1134.
U. S. Chamber of Commerce, (1) 160.
U. S. Geol. Survey, (1) 146.

Vitreous china bodies, effect of variation of firing on phys. properties of, (8) 915.

Walker, F. W., sketch of, (1) 33.
Wall and floor tile, compn., (7) 859.
Washburn, E. W., sketch of, (1) 48.
Washington, University of, ceram. dept., (1) 110.
Waste ht., (12) 1224.
Watts, Arthur S., sketch of, (1) 39.
Weelans, Charles, sketch of, (1) 38.
Weidlein, E. R., picture of, (1) 167.
Wheeler, H. A., sketch of, (1) 34.
Whitewares indus., tech. development in, (1) 308.
use of sedimentary kaolins of Ga. in, (7) 854.
Williams, A. E., sketch of., (1) 53.
Wilson, Hewitt, picture of, (1) 111.
Wilson, Thomas E., picture of, (1) 224.
Wood, use of in gas producers, (12) 1219.
Worcester, W. G., (1) 107.

Zimmer, W. H., sketch of, (1) 35.
Zinc, refrac. for, (1) 299.
requirements for refrac. in the electrothermic metallurgy of, (11) 1180.
Zirconia Brazilian oxide anal. of, (1) 295.
cements, (1) 295.
refrac., (1) 294.

ABBREVIATIONS USED IN INDEX

abs.	absolute
a. c.	alternating current
alk.	alkaline
amt.	amount
anal.	analysis
anhyd.	anhydrous
app.	apparatus
approx.	approximate, approximately
at. wt.	atomic weight
av.	average
b. p.	boiling point
B. t. u.	British thermal units
bldg.	building
Brit.	British
cal.	calory(ies)
calc.	calculate
calcd.	calculated
calcg.	calculating
calcn.	calculation
Can.	Canada
cc.	cubic centimeters
ceram.	ceramics
charac.	characteristics
chem.	chemical (not chemistry)
cm.	centimeter(s)
circ.	circular
Co.	Company
Comm.	Committee
coeff.	coefficient
compd.	compound
compn.	composition
concd.	concentrated
concn.	concentration
condy.	conductivity
const.	constant
contd.	contained
contg.	containing
c. p.	chemically pure
cryst.	crystalline (not crystallize)
crystd.	crystallized
cu. m.	cubic meter(s)
d.	density
d. c.	direct current
decompn.	decomposition
det.	determine
detd.	determined
detg.	determining
detn.	determination
dil.	dilute
econ.	economical
ed.	educational
elec.	electric, electrical
e. m. f.	electromotive force
equil.	equilibrium
equiv.	equivalent
est.	estimate
estd.	estimated
estg.	estimating
estn.	estimation
evap.	evaporate
evapd.	evaporated
evapg.	evaporating
evapn.	evaporation
examd.	examined
examg.	examining
examn.	examination
expt.	experiment
exptl.	experimental
ext.	extract
extd.	extracted
extg.	extracting
extn.	extraction
f. p.	freezing point
ft.	foot, feet
fund.	fundamental
fur.	furnace
gen.	general
g.	gram(s)
htg.	heating
h. p.	horsepower
hr.	hour
in.	inch(es)
indus.	industrial
inorg.	inorganic
insol.	insoluble
invest.	investigation
kg.	kilogram(s)
kw.	kilowatt(s)
l.	liter(s)
lab.	laboratory

lb.	pound(s)
lit.	literature
mach.	machinery, machine
mat.	material
met.	metallurgy, metallurgical
m.	meter(s)
manuf.	manufacture
max.	maximum
mfg.	manufacturing
meas.	measure, measurement
mech.	mechanical
mg.	milligram
min.	minute(s)
mixt.	mixture
mol.	molecule, molecular
mol. wt.	molecular weight
m. p.	melting point
N.	normal
org.	organic
operg.	operating
opern.	operation
oper.	operate
p. d.	potential difference
phys.	physical
physiol.	physiological
Port.	Portland
powd.	powdered
prac.	practical
ppt.	precipitate
pptd.	precipitated
pptg.	precipitating
pptn.	precipitation
press.	pressure
prep.	prepare
prepd.	prepared
prepg.	preparing
prepn.	preparation
prob.	problem
qual.	qualitative
quant.	quantitative
recrystd.	recrystallized
ref.	reference
refrac.	refractory
rept.	report
resist.	resistance
resis.	resisting
resp.	respectively
r. p. m.	revolutions per minute
sat.	saturate
satd.	saturated
satg.	saturating
satn.	saturation
sec.	second(s)
scien.	scientifically, scientific
sep.	separate
sepd.	separated
sepg.	separating
sepn.	separation
sol.	soluble
soln.	solution
soly.	solubility
sp.	specific
sp. gr.	specific gravity
sq. cm.	square centimeter(s)
specif.	specifications
stand.	standard
subs.	substance
temp.	temperature
tent.	tentative
v.	volt(s)
vol.	volume (not volatile)
wt.	weight

AUTHOR INDEX TO ABSTRACTS

The reference number in parenthesis refers to the *monthly* number of *Ceramic Abstracts;* the number following this is the *page* number. The letter A, B or P preceding reference number indicates that the abstract is Abstract (A), Book (B) or Patent (P).

VOLUME 2

A. P. Carbon brick, A (2) 17.
Ackermann, A. S. E. Phys. properties of clay, A (5) 110.
Adams, F. W. Manuf. of colorless glass in a tank fur., A (10) 218; Manuf. of white flint glass in a tank fur., A (6) 124.
Adams, I. E. Burnt lime or limestone in glass batches, A (5) 95; From manganese to selenium, A (5) 96.
Adamson, J. Frequency of charging batch into fur., A (2) 26.
Addenbrooke, G. L. Elec. properties of flint glass of d. 6.01, A (9) 195.
Adler, H. Process for removing enamel from old and new enameled articles, P (12) 274.
Akatsuka, M. Expts. on the manuf. of pure-white hard porcelain, A (7) 163; Uranium glazes, A (7) 142.
Allen, A. W. Artificial pebbles for tube milling, A (2) 6.
Allen, D. E. See Hartman, M. L.
Allen H. E. Leer conveyor for sheet glass, P (8) 179.
Allen, T. B. Process of mfg. aluminous abrasives, P (8) 172.
Allison, L. R. W. Annual meeting of N. J. Clay Workers' Assn. and East. Section of Amer. Ceram. Soc., A (5) 115.
Alter, H. F. See Moore, W. E.
Amenomiya, Y. Devitrification caused upon the surface of sheet glass by ht., A (6) 124.
Amsler, W. O. Annealing fur. or leer, P (7) 153; Modern annealing cycle, A (5) 96.
Andersen, O. Phys. chemistry of refrac. oxides, A (9) 199; Quartz (Norway), A (6) 128; See Holtedahl, O.
Anderson, H. F. Method and mach. for constructing embossed glass plate, P (11) 248.
Anderson, R. P. Tables and charts for natural gas users, A (2) 5.
Anfindsen, C. B. Kickback car dump, P (7) 159.
Anspach, M. Glass tile for covering walls, P (8) 176.
Anthes, G. P. See Slater, W. A.
Anthony, A. R. Burner, P (9) 202.
Antonoff, G. N. Surface tension in solids, A (5) 111.
Appert, L. Progress in glass indus., A (9) 195.
Arnold, V. Continuous updraft vertical shaft lime kiln, P (6) 121.
Asahara, G. Nature of graphite and amorphous carbon, A (5) 99.
Asquith, M Causes of secondary boil, A (2) 27.
Atkins, F. J. Oil burner, P (9) 202.
Atkinson, J. S. Recent developments of powdered-coal firing, A (5) 116.
Austin, A. O. Joint for articles of ceram. and similar mat. and method of producing same, P (4) 77; P (9) 200.
Ayres, E. B. App. for drying thin plates or other clay articles, P (3) 48.
Bagge, P. F. Rumanian cement mill, A (3) 66.
Bailey, C. F. Kiln for firing pottery and other articles, P (4) 81; P (11) 262.
Baillie, W. L. Examn. and extension of Zulkowski's theory of reln. between the compn. and durability of glasses, A (3) 61; Some aspects of the autoclave test for durability of glass, A (12) 276; Use of autoclave method in testing glassware, A (5) 92.
Baillie and Wilson. Autoclave test for chem. glassware, A (2) 27.
Bain, G. W. Magnesite deposits of Grenville, Quebec, A (9) 209.
Ballo, R., and Jugovics, L. Theory of formation of dolomite, A (3) 50.
Bancroft, W. D. Prob. of retarding corrosion, A (4) 82.
Barbeau, H. M. Glass-grinding mach., P (4) 73.
Barringer, L. E. Elec. insulating compn., P (3) 47.
Barta, R. Anal. of silicates, A (12) 280; Brick-making in Czechoslovakia, A (9) 196; Building mat. indus. in Czechoslovakia, A (12) 287.
Barton, L. E., and Kinzie, C. J. Method of sepg. zircon from undesired subs.. P (8) 189.
Baschant. Saving coal in ceram. plants, A (12) 289.
Bassett, H. P. See Meigs, C. C.
Bawtree, A. E. Record of color research during 1922, A (11) 236.
Bayley, W. S. See Ries, H.
Beebe, D. S. Tool for cutting glass while in plastic state, P (10) 219.
Beebe, R. See Menzies, A. W. C.
Beecher, M. F. Bonded alumina refrac. mat., P (6) 132; Safety-tread tile, P (6) 120.
Beecher, M. F., and Booze, M. C. Bonding carbide grains with ceram. mat., P (6) 131; Laminated super-refrac. article, P (8) 183.
Beecher, M. F. See Klein, A. A.; See Jeppson, G. N.
Bell, H. Forms of specif. for purchasing coal, A (6) 139.
Bell, H. A. New form of m. p. app., A (7) 165.
Bell, M. L. See Nesbit, C. E.
Bell, W. J. Sifting testing mach., P (8) 185.
Belvoir, T. See Kelly, C.
Benedicks, C., and Sörberg, E. Improvement of emery papers, A (5) 90.
Benfey, G. Manuf. of clay products in Ger., A (7) 157.
Bentz, H. App. for drying mats. by steam and air currents, P (6) 136.
Bergdahl, B. The new precision pycnometer, A (11) 260.
Berglund, A. Cement mill, P (4) 78.
Berl, E., and Urban, W. Hydraulic binding mats., A (10) 215.
Berninghaus, E. Method of enameling, P (7) 149.

Berry, H. Artificial stone, cements, etc., P (11) 240.
Bertrand, L. Ceram. products: degree of firing ascertained by microscope, A (9) 210; Influence of hardening of cement and lime mortars in steam under press. on mech. strength of these mortars, A (4) 71; Use of petrographic microscope in ceram. to exam. structure of clay in raw and fired state, A (10) 221.
Bied, J. Aluminous cement, A (5) 91; Utilization of the waste ht. of rotary cement kilns, A (3) 66.
Biehl, K. See Grün, R.
Bigelow, F. B. Fur. sectional dead grate with brick inserts, P (10) 228.
Bigot, A. The basic glasses industry, A (11) 246; Losses on ignition and porosity of kaolin, clays, bauxites, etc., A (4) 83; Plasticity of ceram. mat., A (9) 210.
Bigot, F. Stain and efflorescence on ceram. products, A (12) 288.
Bingham, E. C., Bruce, H. D., and Wolbach, M. O., Jr. The plastometer as an instrument for process control, A (3) 50.
Binns, C. F. Brick or tile for fur. construction, P (9) 209.
Bird, C. A. Elec. fur. melting, A (3) 52.
Bitting, A. W. Study of brown glass milk bottles, A (3) 59.
Black, J. H. Manual of face brick construction, B (7) 159.
Blacker, J. F. The A. B. C. of English salt-glaze stoneware, from Dwight to Doulton, B (11) 259.
Blakeslee, H J. Pyrometer of potentiometer type, P (6) 136.
Blixt, T. See Frozeth, E. E.
Blizard, J. See Kreisinger, H.
Block, B. The sieve centrifugal, A (3) 48.
Blum, D. See Kissner, H.
Boiboul, M. Crucibles, P (3) 53.
Bone, W. A. Surface combustion with special ref. to recent developments in radiophragm htg., A (9) 208.
Bonnet, F. Compressibility of matter. Method and app. (patented) for measuring press. exerted in press, A (7) 165.
Booze, M. C. Nonslip quartz tile, P (8) 172; See Beecher, M. F.
Boss, J. C. App. for drying brick and other clay articles, P (12) 281.
Boswell, P. G. H. Comparison of Brit. and Amer. foundry practice, B (5) 10; Glass-making sands (W. Australia), A (7) 169.
Bowles, O. An untrodden field in lime research, A (11) 239.
Boudouard, O., and Lefranc, J. Quant. anal. of clays, A (5) 110; Studies of clays. II. Centesimal and rational anal., use of microscope, A (8) 188.
Bowen, N. L. See Morey, G. W.
Bowley, H. Chemistry of alunite, A (2) 12.
Brace, P. H. Terminal for elec. fur., P (9) 203.
Bradley, W. E. F. Elec. fur. for ore reduction, P (2) 20.
Brain, G. See Kirk, C. J.
Braun, W. Problems in geol. of service to ceram., A (11) 263.
Brender à Brandis, G. A. Sp. ht. gases, A (2) 14.
Brenner, A. See Schwartz, R.
Brenner, R. F. Manuf. and properties of oven glass, A (5) 95.
Brissaud, A. A new application of the elec. fur. Fused aluminous cement, A (11) 239.
Brit. Port. Cement Research Assn. Setting of Port. cement, A (7) 146.
British Thomson-Houston Co., Ltd. Glass, P (11) 250; Porcelain, P (3) 51.
Brobston, J. Utilization of waste ht. from rotary cement kilns, A (2) 36.
Brookes, E. Mach. for use in the manuf. of teacups, breakfast cups, beakers, and other vessels or articles of pottery, P (11) 259.
Brooks, F. W. Methods of handling mats. in elec. fur. and the best type of fur. to use, A (7) 166.
Brown, A. E. Brick roads for Britain, A (6) 127.
Brown, F. H. Burner, P (9) 209.
Brown, G. H. Burning of porcelain, A (4) 76.
Brown, J. C. Mineral colors, A (2) 11; Corundum in India, A (2) 21.
Brown, L. Symposium on casting, A (12) 282.
Brown, S. N. Setting and hardening of cements, A (10) 214.
Brown, W. D. R., and Pickston, W. T. Gas-analyzing app., P (3) 49.
Browne, C. A. Early chem. indus. in Amer. (A few comparisons of past and present conditions), A (2) 7.
Bruce, H. D. See Bingham, E. C.
Brumbaugh, J. D. Electrolytes' effect on plastic clay, A (5) 108.
Bryden, C. L. Development of the filter press, A (4) 77.
Buckley, L. C. App. for shaping insulators, P (11) 259.
Buckman, H. H., and Pritchard, G. A. Refrac. articles contg. zircon, P (6) 132.
Budnikov, P. P. Gilding glazed clay vessels, A (8) 174; Zircon for white glazes, A (7) 142.
Budnikov, P. P., and Syrkin, J. K. Dissocn. of calcium sulfate at higher temp., A (8) 188; Hardening and speed of soln. of calcined gypsum, A (8) 189; Setting and velocity of soln. of burnt gypsum, A (6) 121.
Building Code Committee. Recommended minimum requirements for small dwelling construction, A (4) 74.
Bundrick, D. D. Thermometer support for use in kilns, P (2) 10.
Burchartz, H. Clay and cement tubing, A (5) 98; Ht.-insulating power of structural mat., A (11) 254; Properties of Port. cement, A (11) 239.
Burger, M. Pottery-forming mach., P (12) 265.
Burgoon, C. E. Ht. efficiency increase in cement burning, A (2) 35.
Burgues y Escuder, D. C. Colloidal clay, A (12) 287.
Burns, R. M., and Hulett, G. A. Some properties of graphite, A (7) 161.
Busard, I. B. Sheet-glass-drawing and delivering app., P (12) 278.
Butterworth, F. W. Method of forming texture brick, P (10) 223; Sanded texture brick, P (10) 223.
Buttolph, L. J. A small high intensity mercury arc in quartz glass, A (5) 114.

Cadwell, C. A. Elec. fur., P (11) 261.
Cadwell, S. M. Acceleration of vulcanization and products obtained thereby, P (10) 230.
Call, B. G. Rabble-fur. construction, P (11) 260.
Cambage, R. H. Clays, A (10) 229.
Caffrey, J. H. Fibrous wall-board, P (7) 149.

Cahill, W. E. Melts gray iron elec., A (4) 79.
Callard, R. P. Sheet-glass-drawing mechanism, P (12) 278; Drawing continuous sheet glass, P (12) 278.
Campbell, A. M. Feldspar, A (4) 81.
Candlot, E. Automatic vertical fur. for baking of cement, A (4) 70.
Capp, J. A. Suggested methods for verification of testing mach., A (5) 105.
Carpenter, C. H. Elec. fur., P (9) 203; Elec. resist. crucible fur., P (6) 135.
Carrier, W. Method of and app. for drying and conditioning mats, P (12) 285.
Carruthers, J. L. Notes on shivering of terra cotta, A (2) 21.
Carruthers, R. G., and Pocock, R. W. Fluorspar, A (4) 81.
Carter, S. A. Chem. deposition of silver on mirrors, A (5) 93.
Cassidy, P. R. Fur., P (8) 182.
Castelli, G. Practical procedure for anal. of bauxite, A (9) 211.
Catlett, C. Oxychloride cement, P (3) 67.
Chapman, W. B. Gas-producer ht. balances, A (11) 246.
Charriou. Ferric oxide and alumina sepd. from lime, A (5) 109.
Chatley, H. Clay-mud, A (5) 109.
Chatterton, R. M. Clean producer gas, A (10) 228.
Chaudron, G., and Garvin, M. Lab. app. for htg. at high temp., A (9) 202.
Chéine, S. D. Manuf. of aluminium in Russia, A (5) 90.
Christie, C. H. Door for glass-pot fur., P (12) 279.
Chubb, L. W. App. for elec. pptn. of suspended particles from gases, P (4) 78.
Cite, J. D. See McElroy, R. H.
Clamer, G. H., and Wyatt, J. R. Elec. inductive fur., P (6) 135.
Clapp, H. B. Refrac. mat. for high-temp. app., P (6) 132; See Ferolite, Ltd.
Clark, F. G. Dark spots on chromium green glass, A (2) 27.
Clark, W. G. Feed trough for glass fur., P (10) 220.
Clark, W. M. Opportunity for an Amer. glass training school, A (7) 153.
Clarke, J. R. Fluorescence and coloration of glass produced by β-rays, A (8) 176.
Clements, F. Brit. Siemans fur. practice, A (2) 16.
Clements, J. M. Cement indus. in China, A (2) 35.
Clerc, C. See Nihoul, A.
Cochran, A. B. Making stiff mud fire brick, A (10) 223.
Colby, O. A. Elec. resist. fur., P (4) 81; Elec.-fur. resistor, P (9) 206.
Cole, A. J. G. Rocks and their origin, B (5) 108.
Cole, L. H. Diatomaceous earth, A (10) 230; Silica, A (10) 230.
Collings, W. R. See Cottringer, P.
Collins, E. F. Elec. ht., its generation, propagation and application to indus. processes, A (3) 46; Mats. for fur. and ovens, A (3) 51; Notes on reheating of glass electrically, A (7) 153.
Collins, H. F. China clay. Its compn., prepn. and uses, A (7) 169.
Collins, H. R. Separator, P (9) 206.
Cone, E., and Hale, J. W. Refrac. fur. linings, P (12) 282.
Coon, J. M. Microscopical examn. of China clay, A (10) 226.
Cooper, R. B. Brick, P (8) 180.
Cordenot, L. A. Ceram. compns., P (3) 55.
Cordery, F. Manuf. of bldg. blocks and bricks, P (11) 240.
Corl, R. M. Process of and app. for forming glass, P (11) 249.
Cornille, A. A continuous filter press for ceram. slips, A (12) 284.
Corning Glass Works. Glass, P (7) 155; Glass manuf., P (12) 280.
Corse, W. M. Federal and state research agencies, A (3) 46.
Cottringer, P., and Collings, W. R. Method of making anhydrous magnesium chloride, P (9) 206.
Couëtoux, H. Mech. burning of brick and tile, A (7) 166.
Cousen, A., and Turner, W. E. S. Production of colorless glass in tank fur., with particular reference to the use of selenium, I, A (5) 94.
Cousen, A. See Turner, W. E. S.
Cox, S. F. Application of calorizing to glass-making process, A (5) 96.
Craig, E. N. See Pearson, R. E.
Craven, M. B. Note on cause of "splitting" of a pottery body, A (3) 54.
Creighton, H. J. M. Method of calcg. fluidity, surface tension, and reaction (equilibrium) press., A (4) 83.
Cressy, E. Discoveries of the Twentieth Century, B (5) 117.
Crossley, P. B. Non-fragile glass, P (3) 63.
Crowley, J. P. App. for and method of drawing sheet glass, P (4) 73; Method of an app. for producing continuous sheet glass; P (12) 279; Method of making sheet glass, P (12) 279.
Crowley, J. P., and Rowley, C. A. App. for bending continuous-sheet glass, P (7) 155.
Crupi, F. J. Method of making abrasive articles of manuf. and product, P (12) 272.
Currie, J. Columnar structure in sandstone tank blocks after rapid htg. and cooling, A (5) 94; A (10) 218.

Daae, R. Gas producer, P (7) 168.
D'Adrian, A. L. D. Fused zirconium oxide articles, P (3) 53; Glass, P (3) 64.
Danehower, F. B. Refrac. article and method of making same, P (8) 182.
Darby, E. H. See Kraus, C. A.
Darling, C. R. Elec. resist. fur., A (6) 137.
Davenport, R. W. Rapid decorating firing fur. or kiln, P (8) 185.
Davidson, F. "Davon" micro-telescope and supermicroscope, A (5) 105.
Davidson, J. H. Dark spots on chromium green glass, A (2) 27.
Davidson, S. Method of and app. for feeding molten glass, P (10) 221.
Davis, C. A. Manuf. of Port. cement, B (5) 91.
Davis, H. E. Something better in enamel smelters, A (3) 64.
Day, D. T. App. for combined solvent and destructive distillation treatment of shale, P (8) 191.
Dede, L. Comment on R. Fricke's communication, "Rubbing the wall of a glass vessel with glass rod," A (2) 28.

Deguide, C. Process for the manuf. of alkali-metal silicates, P (11) 265.
Delany, J. H. Manuf. of ht.-insulating articles, P (11) 249.
Delorme, F. Automatic feeding of fuel in Hoffmann continuous kilns, A (7) 166.
De Luca, D. Tilting elec. fur. adapted for melting scrap iron, P (6) 135.
De Mejer, E. C. Prevention of efflorescence on bricks, etc., P (3) 57.
Demongeot, M. A. Manuf. of articles of glass, P (11) 249.
Demorest, D. J. Gasification of Ohio coals, A (5) 116.
Denaeyer, M. E. Chem. constitution of feldspars. Anal. of 2 microclines, A (2) 12.
Denk, F. J. Ht. balance for 25-T. glass tank, A (3) 59.
Denney, G. C. Arch brick, P (11) 257.
Deputy, F. E. Leer conveyor for continuous sheet glass, P (7) 155.
Derby, I. H., and Higburg, W. Pure cresol from crude tar acids, P (7) 168.
Desch, C. H. Colloidal systems in solid cryst. media, A (5) 114.
Desenberg, J. Process of mfg. optical glass, A (6) 123.
Desgraz, A. Charac. for evaluation of limestone, dolomite and similar carbonate rocks and rapid method for analyzing the same, A (5) 91.
Deulin, F. E. Leer conveyor for continuous-sheet glass, P (7) 155.
Devereux, P. S. Refractories, A (4) 76.
Dickenson, A. W., Dimbleby, V., Norton, L. E. and Turner, W. E. S. Mixing of glass batches in factories, A (10) 219.
Dickenson, A. W. See Turner, W. E. S.
Dimbleby, V. M., Hodkin, T. W., Parkin, M., and Turner, W. E. S. A study of the melting and working properties of boric-oxide glasses with ref. to the boro-silicates, A (12) 275.
Dimbleby, V., Muirhead, E. M. M., and Turner, W. E. S. Effect of magnesia on resist. of glass to corroding agents and comparison of durability of lime and magnesia glasses, A (3) 61.
Dimbleby, V. M., and Turner, W. E. S. The anal. of glasses rich in boric oxide, A (12) 275.
Dimbleby, V. See Turner, W. E. S.
Dingledine, H. F. Construction and adjustment of dies, A (9) 195.
Dinsmore, F. W. Symposium on casting, A (12) 282.
Dorello, P. New thermo-regulator for the thermostat, A (2) 8.
Drake, J. W. Vertical gas retort and producers, P (6) 139.
Drever, H. Elec. steam generator, A (5) 115.
Driscoll, R. A. Elec. fur., P (6) 136.
Drouot, H. Refrac. mats., A (7) 161.
Duckham, A. M. Gas-fired pottery kiln, P (3) 53; Muffle fur., P (6) 137; Some new forms of kilns A (3) 45.
Dümmler, K. Tunnel kilns, A (7) 166.
Dundon, M. L. Glass-metal joint, A (6) 125.
Dupuy, M. E. L. Properties of refrac. under load at high temps., A (2) 16.
Durante, G. App. for photomicrography, A (7) 165.
Durbin, P. C. Cement kiln insulation, A (5) 101.
Dworzak, A. Rotary horizontal fur. or kiln adapted for htg. granular or pulverulent mat., P (6) 137.
Dyer, R. J. Kiln, P (7) 167.
Dyrssen, W. App. for moving fur. electrodes, P (9) 206.

Eckel, E. C. Cements, limes and plasters, B (5) 92.
Eckert, F. Annealing of glass, A (10) 217. Hollow wall, P (9) 197.
Eckley, J. R. See Moore, W. E.
Edmonds, W. G. Operating continuous glass fur. with fuel oil, A (5) 95; Use of fuel oil for finishing glassware, A (5) 95.
Edwards, V. C. Reinforced glass, P (12) 277.
Eichenberger, F. Elec. resist. mat., P (3) 53.
Eisenmann, J. Building block and construction, P (9) 197.
Ellenwood, J. W. Grading app., P (8) 190.
Elliott, C. Plaster of Paris tech., A (11) 236.
Ells, S. C. Bituminous sands (Alberta), A (5) 106.
Elsenbast, A. S., and Jordan, W. L. Insulating cement, P (3) 53.
Elwood, H. Crazing of Eng. earthenware, A (6) 133.
Elworthy, R. T. Fossil resin from Brit. Columbia, A (5) 106.
Emerson, J. W. Hardened water-repellent gypsum plaster and method for producing same, P (12) 274; Plaster wall board, P (6) 122.
Emery, W. See Jones, D.
Endell, K. Importance of sci. research in development of ceram. indus. in N. A., A (2) 5.
English, S. The effect of various constituents on the viscosity of glass near its annealing temp., A (12) 276; An examn. of some current views on the detection of strain in glass, A (12) 276.
English, S., and Turner, W. E. S. D. of soda-lime-magnesia glasses and calcn. of d., A (10) 219; The influence of boric oxide on the annealing temp. of boro-silicate glasses, A (12) 275.
Ennos, F. R., and Sutcliffe, R. Estimation of iron in ores and silicate rocks, A (11) 268.
Erckmann, P. E. Pyrex glass, A (4) 73.
Eskola, P. Silicates of strontium and barium, A (4) 83.
Evans, E. The trend in modern Amer. ceram., A (12) 272.

Fabre, J. H. The Wonder Book of Chemistry, B (5) 117.
Fahrenwald, A. W. Film method for measuring surface and interfacial tension, A (5) 112.
Farish, W. A. Non-recrystd. refrac. mat., P (10) 226.
Farmer, F. M. Rept. of Comm. D-9 on elec. insulating mats., A (5) 104.
Feldenheimer, W., and Plowman, W. W. Treating clay, P (3) 51; Treatment of clay, P (6) 138; P (8) 190.
Feldman, A. See Harkins, W. D.
Ferguson, J. B. See Williams, G. A.
Ferngren, E. T., and Soubier, L. D. Glass-cutting mechanism, P (7) 153.
Ferolite, Ltd., and Clapp, H. B. Crucibles, retorts, etc., P (11) 256.
Ferrari, F. Cement mixt., P (6) 121.
Fesler, M. A. Burner, P (9) 206, 207; Liquid-fuel burner, P (9) 206.
Fichter, M. and A. To tarnish or etch glass surfaces, A (2) 28.

Fieldner, A. C. Analyses of mine and car samples of coal collected in yrs. 1916–1919, A (2) 5; Coal, A (6) 138.
Filon, L. N. G., and Harris, F. C. The diphasic nature of glass, as shown by photo-elastic observations, A (11) 247.
Fink, G. J. See Holmes, M. E.
Fischer, R. New viscosimeter for viscous subs., A (6) 135.
Fitzgerald, F. A. J. Elec. arc fur., P (6) 135.
Fleck, C. Chromate-albumin copying process as etching basis for glass, etc., A (2) 30.
Fleisher, W. L. See Lissauer, A. W.
Fleming, A. G. Study of conditions causing disintegration of cement under the "accelerated" test, A (3) 66.
Fleming, A. P. M. Some developments in insulating mats. and processes in Great Brit., A (3) 52.
Fleury, P. Molybdenum resist. vacuum fur., A (5) 113.
Flinn, A. D. Research for engineering soc., A (3) 46.
Flint, F. C. Feldspar for glassmakers, A (7) 152.
Flood, L. W. Dry pressing refrac. shapes, A (5) 99.
Flugge-de-Smidt, R. A. H. Notes on evolution of the konimeter, A (6) 135.
Flusin, G. Silica glass, its properties, history and manuf., A (4) 71.
Foltz, A. Symposium on casting, A (12)282.
Ford, W. E. Dana's Text-book of Mineralogy, B (5) 108.
Fornander, E. Reducing ores in elec. blast fur., P (2) 21.
Forsyth, G. M. Lustered pottery; ancient and modern, A (6) 120.
Foster, C. E. Pyrometers as applied to pottery indus., A (6) 133.
Foulk, C. W. New form of precision hydrometer, A (9) 201.
Fouracre, R. A simple instrument for testing refractive indices of liquids, A (2) 9.
Fowle, A. E. App. and method for drawing two sheets of glass in separable contact with each other, P (7) 155.
Fox, C. A. Building block compn., P (6) 122.
Fox, C. S. Glass manuf. (India), A (4) 72.
France, W. A. Manuf. of self-hardening refrac. articles, P (8) 182.
Francis, C. W. Acid elec. fur. practice, A (2) 18; Basic elec. fur. opern., A (2) 19.
Frank, E. Hollow glass articles, P (3) 64.
Fraser, G. H. Crushing machine, P (9) 203; Machine for crushing or grinding, P (9) 204; Pulverizing mill, P (9) 204.
French, J. W. Abrasives and polishing powders for glass, A (2) 29; A (7) 152; Optical glass. Its properties and production, A (2) 28.
Fricke, R. Aluminium hydroxide and "aluminic acid," A (2) 14; Rubbing of glass walls with glass rod, A (2) 28.
Friedrich, C. O. Elec. flue-gas examiner, A (2) 8.
Friedrich, O. App. for meas. high temps., A (2) 9.
Frink, R. L. Frequency of charging batch into fur., A (2) 27; Glass molds, P (3) 63.
Frohman, E. D. Refrac. mat., P (6) 132.
Frozeth, E. E., and Blixt, T. Fire arch for fur., P (8) 182.
Frydlender, J. H. Commercial application of electroösmosis, A (5) 116.
Fuha, K. Coloring glasses with cobalt compds., A (7) 151; Coloring glass with nickel, A (3) 58; Improvement in boro-silicate glass, P (3) 63.
Fujiyama, T. Process of burning pulverized fuel in which Port. cement is obtained as by-product, P (3) 67.
Fukata, S. Purification of gypsum, P (8) 184.
Fukudo, Y. Study of cast iron enamels, A (11) 241.
Fukuoka, D. Process of under-glaze coloring, A (3) 55.
Fukuzawa, S., Fukuzawa, I., and Gips Co. Process of mfg. plaster of Paris, P (3) 67.
Fuller, J. W. Application of pulverized coal to boilers, A (2) 7.
Funk, W. Expts. on the low-temp. final firing of porcelain, A (11) 258.
Fuwa, K. Color given to glass by antimony oxide, A (11) 244; Color given to glass by tungsten, A (11) 242; Color given to glass by vanadium, A (11) 243; Color imparted to glass by chromium, A (11) 243; Coloring action of molybdenum on glass, A (11) 243; Manganese compds. as glass colorants, A (11) 243.

G. C. Gyratory crushers, A (2) 33.
Gaillard, J. Calite, new alloy resist. to high temp., A (8) 185.
Gardner, J. H. Sir Wm. Crooke's anti-glare glasses, A (5) 96.
Garvin, M. See Chaudron, G.
Gaskill, J. A. Tilting oil-fired crucible fur. adapted for melting metals, P (6) 132.
Gaston, R. M. Ball testing app. for estn. of resiliency of metals, rubber or other mats., P (6) 136.
Gaudin, A. M. See Taggart, A. F.
Gehlhoff, G. Vol. production of incandescent lamp bulbs, A (10) 217.
Geiger, C. F. Muffle fur., P (10) 228.
General Electric Co. Glass, P (7) 155; Thermostats, P (2) 10.
Gerlach, E. Catalysis in glass formation, A (10) 217; Ht.-insulating mat. and method of manuf., P (12) 289.
Gianoli, G. The ht. balance of glass leers, A (7) 153.
Gibson, A. H., Lea, F. C., and Griffiths, E. The effect of enamel on transmission of ht., A (11) 242.
Gill, G. M. Use of refrac. mat. in gas works, A (9) 199.
Gillett, H. W., and Mack, E. L. Elec. brass fur. practice, A (7) 161.
Gillot, M., and Guillermin, V. Ht. elec. steel fur., A (8) 185.
Glasenapp, M. von. Chemism of hardening of Roman dolomitic cements; colloidal form of hydrated lime, A (10) 214; Crystalloids and colloids in theory of cement, A (10) 216; Energy of crystn. of calcium sulfate dihydrate, and "regenerated" gypsum, A (11) 239.
Goddard, W. T. Elastic cement, P (6) 121; Insulator, P (9) 200; P (10) 226, 227; Strain insulator, P (10) 226.
Goldschmidt, V. M. Proc. of producing magnesium nitrate, P (8) 189.
Good, R. Manuf. of glassware, P (12) 279; Melting glass, P (3) 64.
Goslich. Free calcium hydroxide in hardened Port. cement, A (11) 238; How much water is chem. combined in a hardened Port. cement? A (11) 238.

Gossner, B. Chem. constitution of silicates, A (2) 13.
Goucher, F. S., and Ward, H. Prob. in viscosity: Thickness of liquid films formed on solid surfaces under dynamic conditions, A (5) 113.
Graham, H. W. B. Brick machine, P (9) 196; Brickmaking app., P (8) 181.
Granger, A. Burning of porcelain with fuel oil, A (12) 283; Firing of ceram. products in elec. heated fur., A (3) 45.
Granger, M. A. Pot bank firing with petroleum residues, A (4) 79.
Gravely, J. S. Removing rust from metals, P (11) 242.
Gray, J. H. Mat. for fur. walls, P (6) 132.
Gray, W. Glass-drawing app., P (8) 177, 178.
Greenwood, W. W. Magnesia refrac., P (10) 226; Segmental abrasive wheel, P (12) 272.
Griffin, M. L. The plant manager and the chemist, A (4) 83.
Griffiths, E. See Gibson, A. H.
Grigorovitch, K. P. Elec. fur. for melting of steel, A (3) 52.
Grindle, A. J. Powdered coal as a fuel in foundry, A (2) 6.
Green, M. M. Rapid detn. of potash in acid-insol. silicates, A (7) 169.
Greenburg, L., and Smith, G. W. A new instrument for sampling aerial dust, A (4) 78.
Gregg, A. W. Elec. fur., P (7) 166.
Grocholl, K. New cupola lining, A (5) 100.
Groenwall, A. See Leffler, J.
Grönwall, E. A. A. Method and device for htg. mat. in elec. fur., P (8) 186.
Gross, W. Sepn. of graphite by froth flotation method, A (4) 77.
Grout, F. F. Graphic study of igneous rock series, A (5) 107.
Grover, J. E. Compn. of matter for cleaning crystal and glassware, P (8) 190.
Grün, R. Remelting of acid blast-fur. slags and cement, A (3) 65.
Grün, R., and Biehl, K. The three-component system: lime, silica and alumina, A (11) 268.
Guillermin, V. See Gillot, M.

H. C. Franco-Belgian Assn. for testing mats., A (12) 273.
Haas, B. Improvements in manuf. of magnesia cement, A (7) 148.
Hadley, H. L. Clay pavement, P (6) 128.
Haegermann, G. Behavior of hardened Port. cement under pure water, A (10) 215.
Hagaman, M. Washtub, P (11) 259.
Hagener, A. See Slater, W. A.
Hagiwara, K., Morimoto, K., Ueda, K., and Hiraoka, T. Study of glass, A (3) 58.
Hahn, F. v. See Ostwald, I. W.
Haire, R. E. Method for making plastic gypsum, P (8) 189.
Hale, J. W. See Cone, E.
Hall, F. W. App. for manuf. of aluminum chloride, P (12) 272.
Hallatt, H. H. The re-circulation drier uses little power, A (12) 283.
Halle, B. A proposal for the establishment of new scale of hardness for glass and crystals, A (11) 260.
Hallimond, A. F. Glauconite from green sand near Lewes, Sussex: constitution of glauconite A (3) 49.
Hambloch, A. Increasing the resist. of cement to sea water by the addn. of trass, A (2) 36.
Haney, M. Abrasives—outline of their history, A (4) 70.
Hansen, O. I. Calcg. ht. losses in fur., A (7) 169.
Hantf, E. A. See Moore, W. E.
Harder, O. E. Improvement in crusher steel is suggested by metallographic tests, A (9) 202.
Hardinge, H. W. App. for entraining and removing fines from conical mills, P (8) 186; Oversize return for mills, P (8) 186.
Hardoncourt, A., Jr. Channel brick, P (11) 254; Clay shingle block and wall construction, P (10) 223.
Harkins, W. D., and Feldman, A. Films. Spreading of liquids and spreading coeff., A (5) 113.
Harris, F. C. See Filon, L. N. G.
Harris, J. E., and Schumacher, E. E. Meas. on gases evolved from glasses of known chem. compn., A (5) 96.
Hart, E. Text-book of Chem. Engineering, B (5) 114.
Hartman, M. L., Sullivan, A. B., Allen, D. E. Elec. resistivity at high temps., A (2) 18.
Hase, R. A thermoelement for radiation meas., A (9) 202.
Hatanaka, T. Mat. for artificial stone, P (3) 67.
Hattori, T. Effect of aeration on properties of Port. cement, A (7) 143; Reagents used in etching cement clinker for examn. of its microstructure. Microscopic study of cement clinker III, A (7) 143.
Heath, F. Pilaster construction, P (7) 158.
Hedvall, J. A. Color of iron oxides, A (2) 14.
Heinel, C. Stoneware as mat. for the construction of app. and machines, A (11) 259.
Heiser, A. Defects in manuf. of Port. cement, and their causes, A (2) 35; The draft in rotary kilns, A (11) 261.
Helbig, A. B. Dangers of powdered fuel, A (3) 45.
Hendrickx, J. High-strength cements, A (2) 36.
Henshaw, S. B. App. and method for flattening sheet glass, P (7) 155; Method of and app. for drawing sheet glass, P (10) 220.
Herman, J. Laws of crushing, A (9) 211.
Hermant, G. Use of waste slate for brick making, A (7) 156.
Herrmann, R. Scleroscope, P (6) 136.
Herschel, W. H. Improved MacMichael viscosimeter, A (9) 201.
Hess, H. W. Annealing of glass, A (3) 62; Annealing and ht. treatment of gage glass, A (2) 28; Boiler gage glass probs., A (3) 62; The chemist in the glass factory, A (4) 73; Detecting stoppages in fur. by vacuum readings, A (4) 73; Fire polishing glassware, A (4) 73; New glass fur. types in Eng. and Europe, A (12) 275; Operating life of tanks, A (4) 73; Raw mat. selection A (4) 73; Testing gage glasses, A (3) 62.
Hetherington, A. L. Early ceram. wares of China, B (4) 86.
Heuer, R. P. Ajax-Wyatt fur. in the brass-mill casting shop, A (5) 100.
Hirano, K. Crucible fur. for mfg. glass, P (2) 31; Rept. on Manchurian magnesite, A (3) 52; Talc porcelain, P (9) 199.
Hiraoka, T. See Hagiwara, K.
Hirsch, H. Slag action on refrac. linings, A (6) 131.

Hitchcock, H. K. Drawing glass sheets, P (11) 248.
Hobson, R. L. The wares of the Ming dynasty, B (10) 230.
Hodkin, P. W., and Turner, W. E. S. The action of water and steam under pressure on some soda-lime-silicate glasses, A (11), 246.
Hodkin, T. W. See Dimbleby, V. M.
Hodkins, F. W. See Turner, W. E. S.
Hodsman, H. J. See Wedgwood, P.
Hogenson, W. Charging app. for enameling fur., P (12) 274.
Hokanson, M. Method of sepg. granular solid mat., P (9) 204.
Holladay, L. L. Resistivity of vitreous mats., A (7) 153.
Holmes, C. W. H. Investgn. of factors influencing grain and bond in molding sands, A (2) 7.
Holmes, G. E. Oil-shale retort, P (9) 212.
Holmes, H. N. A bibliography of colloid chemistry, B (6) 140; Removal of scale and rust from iron and steel, P (12) 274.
Holmes, M. E., and Fink, G. J. Fund. physical and chem. properties of commercial lime. The available lime content, A (2) 34.
Holmes, W. H. Making of watch crystals, A (5) 95.
Holtedahl, O., and Andersen, O. Dolomite (Norway), A (6) 129; Norwegian dolomite, A (9) 199.
Holz, H. A. Elastic column dynamometer for hardness testing, A (6) 135
Horäk, M. V. Unbreakable glass in Czecho-Slovakia, A (4) 72.
Horak, W. Resistant glass. Procedure for making, A (12) 275.
Hordk V. Glass manuf., P (12) 280.
Horstkotte, E. H. Elec. resist. fur. for melting brass or copper, P (2) 20.
Horváth, B. Crude aluminum ores in Hungary, A (12) 13; Rept. from the chem. lab. of Royal Hungarian Geol. Surv., A (2) 14.
Hosiba, S. Vapor press. of arsenic. Detn. of v. p. of metallic arsenic, A (9) 200.
Howard, H. Manuf. of sodium fluoride, P (11) 265; Process of making sodium-silico fluoride, P (8) 189; P (11) 265.
Hruda, J. See Kallauner, O.
Hückel, W. Comments on the paper of A. von Weinberg: "Ht. of combustion and work of dissocn.," A (4) 79.
Huddart, R. See Ryde, J. W.
Hulett, G. A. See Burns, R. M.
Hull, W. A. Study of refrac., A (3) 52; Thermal condy. of refrac., A (2) 15.
Huntley, F. S. Making glass for Ford windshields, A (5) 95.
Hutchinson, O. C. K. App. for testing glass containers, P (2) 31.
Hüttl, A. Slip glazed ware, A (8) 184.
Hydro-Elec. Power Comm. of Ontario. Structural mats. tested, A (2) 32.

Igawa, M. Detn. of sulphate-, chloride-, and carbonate radicals contd. in soda-lime glasses, A (11) 265.
Igranic Elec. Co., Ltd. Calorimeters, P (3) 48.
Ikeda, K., Isobe, H., and Okazawa, T. Process of giving form to fuller's earth, P (3) 51.
Irons, G. E. Tunnel-kiln oil burner, P (11) 263.
Irvine, E. Optical glass, A (10) 217.
Ishida, T. See Koyama, K.
Ishikawa, G. Continuous centrifugal separator, P (3) 49.
Ishikawa, J. Gold coating mixt. for glass or porcelain, P (8) 174.
Isles, A. See Miller, J. C.
Isobe, H. See Ikeda, K.
Itaka, I. Variation of sp. ht. during melting and ht. of fusion of some metals, A (2) 12.
Ives, H. E. High-temp. meas., P (9) 204.

J. B. Thermochemistry of (cement) vertical kilns, A (2) 33.
J. L. The Michell viscosimeter, A (5) 112.
Jackson, F. G., and Shaw, L. I. Purification and anal. of zirconium dioxide, A (5) 111.
Jacobs, W. J. App. for drawing sheet glass, P (7) 154.
Jacobus, D. S. Cement-kiln system, P (11) 240.
Jagger, P. B. Molding and compacting plastic, fluid, powdered, granular, or like subs., P (4) 78.
Jakob, M. Meas. of thermal condy. of liquids, insulators, and metals, A (2) 8.
Jeanneret, F. B. Tests on double burning of lime, and value of cements of high hydraulic index, A (3) 65.
Jeffery, J. A. Ceram. elec. insulating mat., P (6) 134; Fur. for decorating ceram. ware, P (12) 285; Refrac. ceram. ware, P (6) 132.
Jeppson, G. N., and Beecher, M. F. "Safety-tread" ceram. tile, P (6) 134.
Jette, A. N. Reverberatory fur., P (4) 81.
Johannsen, A. Essentials for microscopical detn. of rock-forming minerals and rocks, B (5) 108.
Johnston, R. See Pile, S.
Jolibois, P., and Lefebvre, P. Drying of plaster and its conservation in humid air, A (10) 214.
Jones, A. F. Hollow tile building block, P (4) 75.
Jones, D., and Emery, W. Jointing mat. for refrac., A (11) 255.
Jones, L. T. New rotary mercury pump, A (3) 48; Simplest mercury vapor pump, A (3) 48.
Jones, W. R. China clay deposits in Malay, A (12) 286.
Jones, W. R. R. Refrac. silica mat. of S. Wales, with special ref. to the influence of texture, A (11) 255.
Jordan, W. L. See Elsenbast, A. S.
Jordon, F. G. Damproofing concrete body, P (4) 84.
Jugovics, L. See R. Balle.

Kaisha, H. See Nakamura, H.
Kallauner, O., and Hruda, J. Effect of U_3O_8 upon fusibility of Zettlitzer kaolin, A (5) 110; Occurrence of vanadium in ceram. raw materials and ware and its effect upon fusibility as well as color and formation of scum on pure kaolin and brick clay, A (3) 57.
Kamibayshi, C. See Kata, K.
Kamita, K. Effect of alumina in retarding the devitrification of glass, A (6) 123.
Kasugai, I. Sagger, P (7) 165.
Kato, K. Waterproof hardening agent of cement, P (8) 175.
Kato, K., and Kamibayashi, C. Process of mfg. paving mat., P (3) 67.
Kato, T. On the test of chem. glasses, A (11) 245.
Kawamoto, T., and Kato, G. Porcelain having the appearance of granite, P (8) 184.
Keele, J. Rept. of work of ceram. division, A (6) 138.
Keeney, R. M. Elec. reverberatory fur. adapted

for smelting ores, P (6) 132; Tilting elec. arc crucible fur. for smelting silver ore, P (6) 135.
Keinath, G. Personal equation errors in optical pyrometry, A (6) 135.
Kelly, A. Process for manuf. of borax and boric acid, P (8) 189.
Kelly, C., and Belvoir, T. Building block, P (10) 222.
Kenney, A. W. Colloid mill and ultra-filter press., A (5) 105.
Keppeler, G. Basis of progress in the glass indus., A (10) 217; On the reln. between the compn. and chem. resist. and chem. attack of glass, A (12) 274.
Kiefer, E. F. Elec. fur., P (12) 285.
Kikuta, T. Growth of cast iron, A (2) 31.
Kimura, S. Slag cement and dolomitic cement, A (7) 144.
King, W. Chelsea porcelain, B (4) 84.
Kingsbury, P. C. Unique development of modern chem. stoneware, A (3) 54.
Kinzie, C. J. See Barton, L. E.
Kirk, C. J., and Brain, G. Porcelain tank and process of making the same, P (9) 200; Process and mold for forming earthenware articles and product thereof, P (9) 200.
Kirk, R. E. The manuf. of Port. cement from marl, A (11) 239.
Kirlin, I. M. Proc. of making hollow panes of glass, P (8) 178.
Kishi, I. Pitch-cement, P (3) 67.
Kishimoto, T. Roofing-tile kiln, P (3) 46.
Kissner, H., and Blum, D. Tool for decorating crockery, P (8) 184.
Klaften. Ht. losses in glass manuf. and their control, A (2) 29.
Kleeman, R. D. Effect of dissolved subs. on deposition of colloidal particles from a soln. by means of elec. current, A (4) 82.
Klein, A. A., and Beecher, M. F. Nonslip tile, P (9) 200.
Klein, A. S. Upright (lime) kilns, A (11) 238.
Klinck, O. New calcn. for detn. of strength of flanges, A (6) 135.
Klinefeldt, H. J. Ball and pebble milling for pulverizing and mixing, A (2) 5.
Klinefelter, T. A. Some notes on mat. and process in elec. porcelain manuf., A (8) 184; Symposium on casting, A (12) 282.
Knapp, L. H. Status of elec. fur., A (4) 80.
Knight, M. A. Acid- and chem.-proof stoneware, A (10) 226.
Knight, N. Chem. study of dolomites, A (10) 225.
Knorrn, R. Modern window glass plant, A (10) 217.
Knothe, W. J. Graphic check on glass-works opern., A (11) 246.
Knowles, J. A. Process and methods of medieval glass paintings, A (6) 124.
Kohama, H. Centrifugal water separator, P (3) 49.
Kolzner, J. (Coal.) Clinker brick, A (10) 222.
Kondo, S. Microscopic structure of common brick, A (11) 253.
Kondo, S., and Nakao, M. On absorption test of common brick, A (3) 55.
Kôno, S. Glass-melting fur., P (6) 126.
Koreavaar, A. Theory of gas producers and its application to blast fur. operations, A (3) 46.
Koyama, K., Ishida, T., and Nakamura, Y. Roofing tile industry in Ishikawa prefecture, A (11) 257.
Krak, J. B. Avoiding errors in the analysis of glass sand, A (11) 246; New plant of U. S. Sheet and Window Glass Co. at Shreveport, La., A (3) 61; Notes on glass etching, A (5) 96.
Kraus, C. A., and Darby, E. H. Conduction process in ordinary soda-lime glass, A (5) 96.
Kraus, L. P., Jr. Proc. for making refrac. products, P (7) 162.
Kreisinger, H., and Blizard, J. Powdered coal as fuel in steam plants, A (5) 116.
Kreitzer, H. R. Wall construction, P (9) 197.
Kreuger, H. Effect of low temps. on hardening of cement, A (10) 216.
Kroonen, L. Building construction, P (9) 197.
Krusee, A. W. Bldg. construction, P (8) 180.
Kucera, P. Matrix device for molds, P (7) 154; Method of mfg. ring molds, P (7) 154.
Kühl, H. Copper ruby glass, A (3) 62; Fineness of raw mix, strength, and impact test, A (11) 239; Prob. of Ger. glass indus., A (4) 73.
Kuwayama, M. See Takamatsu, T.
Kyle, R. T. Kiln, P (4) 80.

Ladoo, R. B. Barytes, occurrence, mining, uses, A (6) 139; Bauxite: Occurrence, mining and uses, a (6) 128; Fluorspar mining in the western states, A (11) 264.
Lafon, P. Anomalies in expansion of glasses, A (6) 125.
Langenkamp, A. G. See McElroy, R. H.
Larcheveque, M. M. Study of warpage of refrac. mixts., clays, kaolin, and porcelain when fired at different temps., A (10) 221.
Larmour, H., and Stevenson, W. C. Ht. efficiency increase in cement burning, A (2) 35.
Larsson, T. Dressing tool for grinding wheels, P (9) 194.
La Vercombe, H. H. Grinding-wheel-test device, P (8) 172.
Lax, E. See Pirani, M.
Lea, F. C. See Gibson, A. H.
Lebrun, R. Note on formation of Alsatian potash basing, A (6) 137.
Lecrenier, A. Chem. glass and hard glass, A (11) 247.
Lefebvre, P. See Jolibois, P.
Leffler, J., and Groenwall, A. Manuf. of elec. fur. steels, A (4) 79.
Le Franc, C. See Boudouard, O.
Leicester, C. H. Interlocking brick, P (4) 75.
Leiss, C. Refractometer for detn. of solid and liquid subs., A (2) 8.
Leissler, D. Enameling oven, P (7) 149.
Lents, J. M. Means for transferring molten glass, P (8) 178.
Lessell, J. B. Manuf. of ornamented ware, P (12) 272.
Longnaker, M. S. Excavating mach., P (8) 186.
Levy, L. Control of works operations by sci. instruments, A (5) 117.
Lewis, J. V. Abrasives, A (2) 21.
Liddell, D. M. Handbook of Chem. Engineering, B (5) 114.
Lidstone, F. M. Full effect of variable head in viscosity measurements, A (5) 111.
Liempt, J. A. M. van. Binary systems Na_2SiO_3–Na_2WO_4, K_2SiO_3–K_2WO_4 and Na_2WO_4–K_2WO_4, A (2) 26; Vapor press. and sublimation curves for some impt. metals, A (4) 82.
Liljegran, E. W. Baffled gas scrubber and fume arrester, P (4) 78.

Lillibridge, H. D. Ceram. press., P (4) 78; Crucible of chem. porcelain, P (6) 134.
Lindsay, R. F. Requirements of a refrac. mortar, A (11) 256.
Linebarger, C. E. Hydrometer, P (3) 48.
Liptak, M. Brick-faced metallic trim, P (9) 196; Brick trim for walls, P (9) 196; Fur. wall, P (11) 256, 257; Partition wall for fur., P (11) 256.
Lissauer, A. W., and Fleisher, W. L. Humidifying app. control, P (10) 227.
Liston, N. A. App. for making wire glass, P (12) 277.
Little, G. M. Elec. fur. resistor, P (9) 205; Elec. fur. wall construction, P (9) 205; Elec. resist. fur., P (6) 136; P (9) 205; Protected electrode for elec. fur., P (9) 205; Telescoping electrode protector, P (9) 205; Tubular resist. elec. fur., P (6) 135.
Locke, F. M. Glass, P (3) 64; P (4) 73.
Lösenbeck, O. Investigation of elec. properties of silica acid sols, A (3) 50.
Loeser. Glass fur. temp., A (6) 123.
Loewen, H. The sci. of colloids, A (2) 6.
Lohman, C. J., Jr. B. t. u. chart, A (5) 111.
Lorenz, W. A. Process of and app. for feeding molten glass, P (8) 177.
Lott, C. R. App. for producing charges of molten glass, P (10) 220.
Louis, D. Refractories, P (3) 53.
Lovejoy, E. Burning a down-draft kiln, A (2) 3; Coloration, discoloration and other burning effects, A (5) 96.
Lowry, T. M. Barytes standardization, A (5) 110; A new elutriator for rapid use, A (2) 9.
Lowry, T. M., and McHatton, L. P. Further expts. on the meas. of color, A (11) 236; Grading of powders by elutriation, A (3) 47.
Lucchesi, F. Rapid tech. estn. of iron oxide and alumina in clays and their products, A (9) 211.
Luce, G. E. Method of and means for burning brick, P (7) 167.

M. E. P. Greek terra cottas, A (12) 272.
MacDonald, R. See Richmond, H. A.
Mack, E. L. See Gillett, H. W.
Mackay, P. A. Method of recovering vanadium from its ores, P (8) 188.
MacLellan, A. D. Percentage feeder and mixer, P (11) 260.
MacMichael, H. A. Pottery making in the Blue Nile, A (3) 54.
MacMichael, R. F. App. for analyzing flue gases, P (6) 136; Tests to det. uses for clay, A (3) 44.
Malmed, A. T. Strengthening compn. for cement mixt., P (6) 122.
Malowan, S. L. Tantalum and its tech. uses, A (9) 210.
Manchot, W. Identity of amorphous and cryst. silicon, A (5) 113.
Manly, J. J. Protection of brass wts., A (5) 116.
Mano, N., and Yanaka, R. Paint for waterproofing cement, P (3) 67.
Marckworth, O. S. Non-shatterable glass, P (3) 64.
Marino, Q. Metallizing articles, P (8) 174.
Marko, S. Process of treating shale, P (9) 212.
Marlow, H. J. Gas-fired oven or kiln, P (7) 167.
Marshall, A. E. Pyrex glass as mat. for chem. plant construction, A (5) 96.
Martin, F. M. App. and method for sampling ores, P (8) 190.
Martin, J. C., Jr. Interlocking brick, P (4) 76.
Martinazzoli, A. The Fiat elec. fur., A (4) 80.
Matejka, J. Chem. reln. of kaolinite at high temp., A (2) 13.
Mathews, J. A. Elec. fur. produce quality steel, A (3) 52; Present status of the elec. fur., A (4) 80.
Mattison, R. V. Asbestos-cement, P (3) 67.
Maurach, H. Tech. of the glass fur., A (10) 217.
Maus, F. App. for dehydrating solid subs., P (4) 78.
Mayers, W. S. Leers, A (5) 96; Modern glass factory equipment, A (2) 31; A (5) 96.
McBride, R. S. Natl. Bur. of Stand., A (4) 82.
McDermott, G. R. Automatic governor for gas producers, P (6) 139.
McDonald, J. U. Fur. contg. melting pots or crucibles, P (3) 64.
McDougal, T. G. Spark-plug insulation, P (4) 77; Symposium on casting, A (12) 282.
McDougal, T. G., and McDowell, S. J. Fused ceram. bearing, P (6) 134.
McDowell, S. J. See McDougal, T. G.
McElroy, R. H., Cite, J. D., and Langenkamp, A. G. Brick and tile mach., P (8) 181.
McGree, E. C. Comparison of the modulus of rupture of silica bricks, hot and cold, A (9) 199.
McHatton, L. P. See Lowry, T. M.
McIntire, C. V. Coal gas collecting main and ascension pipe, P (4) 81.
McLaughlin, W. Recuperator for glass fur., P (4) 81.
Meigs, C. C., Bassett, H. P., and Slaughter, G. B. Rept. on Texas alkali lakes, P (9) 209.
Mellen, A. W., Jr. See Pond, H. O.
Mellor, J. W. Physics in ceram. indus., A (8) 187; See Moore, B.
Mennecke, M. French potash indus., A (9) 210.
Menzies, A. W. C., and Beebe, R. Forms of gas and liquid cavities in gels, and their interpretation by surface compression, A (3) 50.
Merwin, H. E. See Posnjak, E.
Meston, A. F. App. for scrubbing coal gas, P (6) 140.
Metallbank und metallurgische Ges. Akt. Ges. Elec. dust ppn., P (3) 47.
Metallister Ges. P (7) 170.
Meurer, N. Enameling, P (3) 65.
Middleton, J. Clay in 1921, A (6) 139.
Miki, S. Magnesia sheet, P (3) 67.
Miller, E. Glass-feeding mech., P (12) 279.
Miller, J. C., and Isles, A. Gas producer, P (4) 81.
Miller, W. J. App. for mfg. glass articles, P (4) 74; Process and app. for feeding glass, P (8) 177; P (11) 250.
Miner, H. S. Grasselli medal award (to W. H. Fulweiler), A (3) 46.
Minton, R. H. Historical sketch of pottery indus., A (3) 45; New Jersey's part in the ceram. history of Amer., A (8) 189; Symposium on casting, A (12) 282.
Mitchell, A. E. Studies on dolomite system. I. The nature of dolomite, A (10) 225.
Mitchell, S. A. Car for tunnel kilns, P (11) 262.
Moats, T. B. Removable-top continuous kiln, P (7) 168.
Moldenke, E. Treating alunite, P (11) 256.
Montgomery, G. L. Handling finished products of indus., A (2) 24.
Montgomery, G. M. Modern handling methods in manuf. of elec. porcelain, A (3) 55.

Moore, B., and Mellor, J. W. Note Books of Josiah Wedgewood, A (7) 142.
Moore, E. T. Recent elec.-fur. developments, A (9) 198.
Moore, W. E. Elec. fur., P (6) 131; Elec. metallurgical fur., P (6) 131.
Moore, W. E., Alter, H. F., Hantf, E. A., Eckley, J. R., and Wright, F. Elec. arc fur. of the rocking type, P (6) 136.
Moorshead, T. C. Mach. for making pressed glassware, P (8) 177.
Morey, G. W. Soly. and decompn. in complex systems (glass and ceram. ware), A (3) 59.
Morey, G. W., and Bowen, N. L. Melting of potash feldspar, A (3) 61.
Mori, J. On the thermal expansion of soda-lead glass, A (11) 244.
Morimoto, K. See Hagiwara, K.
Moyer, A. C. See Wirrer, G.
Mugdan, S. See Ruff, O.
Muirhead, E. M. M. See Dimbleby, V.
Mullen, J. I. Ore concentrator, P (11) 261.
Murrill, P. I. Process of making vulcanization accelerators, P (7) 170.
Musiol, C. Correct notions on fluoride enamels, A (11) 242.
Meyers, T. A. Packing for pistons, P (12) 282.
Myers, W. F. Storage and transportation of Port. cement, A (3) 65.

Nacken, R. Thermochem. research on cement, A (7) 148.
Nacken, R., and Schoppe, G. Meas. of the temp. of rotary cement kilns, A (2) 35.
Nagasaki, S. Process of mfg. ht.-insulating wares, P (3) 55.
Nagasawa, T. Enameling fur., P (3) 65.
Nagaya, S. On the crushing strength of concrete and propn. of its mat., A (11) 238.
Nakamura, H., Nakamura, K., and Kaisha, H. Graphite crucible, P (7) 162.
Nakamura, K. Graphite crucible, P (12) 282; Marble cement, P (3) 67; See Nakamura, H.
Nakamura, S. Examn. of glass by polarized light, A (3) 61.
Nakamura, Y. See Koyama, K.
Nakao, M. See Kondo, S.
Naske, C. Die Portlandzementfabrikation, B (7) 149.
Needham, E. F., and T. H. Wall construction, P (8) 180.
Negbaur, H. Ovenware and holder therefore, P (8) 176.
Nelson, R. A. Thermal condy. of white marble and "Neat" cement, A (2) 35.
Neugebauer, H. The dispersoid chemistry of gypsum. II. Research on anhydrite, A (2) 36.
Neuray, L. Modern radiation pyrometers, A (2) 9.
Nesbit, C. E., and Bell, M. L. Fire brick disintegration, A (10) 223.
Newcomb, R. W. New type of automatic temp. regulator and its application to ht.-treating fur., A (3) 48.
Nichols, W. H. Ernest Solvay, an appreciation, A (3) 46.
Nicolardot, P. Comparison of Fr., Eng., Ger. and Austrian lab. glassware, A (10) 217.
Nihoul, A., and Clerc, C. Process for the manuf. of zinc white, P (11) 265.
Niimura, S. Process of mfg. ignition-plug and other refrac. porcelains, P (3) 55.
Nord, N. A. Masonry structure, P (7) 158.
Normile, T. China clay in Calif., A (10) 226.
Norris, P. B. Fluid-fuel burner, P (9) 207.
Norris, W. F. Medieval glass of York Minster, A (5) 94; A (10) 218.
Norsk Aluminum Co. Decompn. by acids of siliceous alumina compds., A (12) 288.
North, C. L. Bricks, P (6) 122.
Northrup, E. F. High-temp. investigation, A (9) 211.
Norton, C. L. Method of molding brick shapes, P (8) 182.
Norton, L. E. Swelling of sand upon absorption of moist. and its effect upon batch mixing, A (6) 139; See A. W. Dickenson.
du Noüy, P. L. New viscosimeter, A (8) 188.

Odelberg, A. S. W. The "Dorr" mill, A (6) 135.
Ohman, J. L. Refrac. compn., P (10) 226.
Okazawa, T. Studies on clays. I. The acidic reaction of Jap. acid clays, A (11) 266; See Ikeda, K.
Oki, S. Waterproofing reagent for concrete, P (7) 149.
Olsson, Z. Refrac. mat., P (6) 132.
O'Neill, F. Fur., P (2) 31; Glass-handling app., P (11) 248.
Orcel, J Prochlorites of corundum-bearing rocks, A (10) 225.
Ormandy, W. R. Purification of clay, A (2) 11
Orton, E., Jr. Address at dedication of new ceram. bldg. at Rutgers Coll., A (3) 45.
Ostwald, W. What progress has sci. of color brought? A (3) 46.
Ostwald, W., and Hahn, F. V. Kinetic flocculation meters, A (2) 9.
Ottman, F. Refrac. ht.-insulation, P (4) 76.
Owens, M. J. Mechanism for conveying hot glassware, P (8) 179; Sheet-glass-drawing mechanism, P (12) 277.
Owens, T. S. Sheet-glass-drawing mechanism, P (11) 249.
Owles, A. B. See Sinnatt, F. S.

P. C. Treatment of calcareous clays, A (7) 156.
Pape, W. See Tamman, G.
Parkert, O. Application of self-luminous colored decorations in glass and ceram. indus., A (3) 63.
Parkin, M. See Dimbleby, V. M.
Parks, C. W. Fur. gas producer, A (2) 5.
Parr, P. H. Air humidity and drying, A (7) 170.
Parr, S. W. Standardization of lab. gas cocks, A (4) 77.
Parravano, N., and Rosselli del Turco, C. The influence of fluxes on the transformations of quartz, A (11) 267.
Passow, H. Free lime in a Port. cement clinker, A (11) 238.
Pazsiczky, G. von. App. for production of spun glass, P (4) 74.
Peacock, S. Alkali metal silicate production in blast fur., P (3) 64.
Pearson, R. E., and Craig, E. N. Reduction of oxides of metals of chromium group, P (8) 189.
Pease, G. S. Refrac. oxychloride cement, P (3) 53.
Peerson, A. H. Rotating or oscillating elec. fur. plants, P (6) 136.
Peiter, F. Rotary kiln adapted for roasting bone-black or fuller's earth.

Pelc, J. Hardening plaster, mortar or cement contg. lime, P (7) 148.
Penfield, R. C. App. for unloading kilns by conveyor belts, P (8) 180; App. for unloading kilns by hopper, lifting device, or the like, P (8) 179.
Petts, E. Burning in up-draft fur. kilns, A (5) 96.
Pickston, W. T. See Brown, W. D. R.
Pike, R. D. Ore-roasting fur., A (9) 211.
Pile, S., and Johnston, R. Tested methods of non-ferrous metallurgical analysis, B (5) 114.
Pirani, M., and Lax, E. Observations made on electrolytic migration of sodium through glass, A (4) 72.
Pite, A. B. Ceram. in field of architecture, A (6) 120.
Platzmann, C. R. Indus. chemistry prob. relative to treatment of cement, A (3) 66; Protection of cements against action of acids A (10) 215.
Plauson, H. Remarkable grinding mill, A (4) 77.
Plauson's Patent Co., Ltd. Refining clay, P (3) 51.
Plowman, W. W. See Feldenheimer, W.
Ployer, A. E. Enamel-ware protector, P (8) 175.
Pocock, R. W. See Carruthers, R. G.
Poetschke, P. Phys. properties of dental cements, A (7) 148.
Pomeroy, R. E. H. Pulverizing mill, P (9) 212.
Pond, H. O., and Mellen, A. W., Jr. Brick-handling app., P (8) 180.
Popoff, A. Necessity for preheating air in fur. work, A (2) 28.
Poppenhusen, H. A., and Strong, A. P. Fire arch, P (12) 282.
Posnjak, E., and Merwin, H. E. System Fe_2O_3–SO_3–H_2O.
Poste, E. P. Standardization of enameled app. for chem. purposes, A (2) 31.
Powell, H. J. Glass-making in England, B (8) 179.
Powell, J. M. Shale planer, P (8) 187.
Powell, J. R. App. for the manuf. of bifocal lens blanks, P (8) 177.
Prat, L. Induced-draft device, P (11) 263.
Pratt, J. T. Tiling block, P (4) 76.
Prausnitz, P. H. Tech. electroösmosis, A (6) 138.
Preston, F. W. Structure of abraded glass surfaces, A (2) 30.
Prevost, P. Working limestone quarry, A (3) 65.
Pritchard, G. A. See Buckman, H. H.
Proctor, C. H. The electrodeposition of silver and copper on glass, A (11) 246.
Pukall, W. Grundzüge der Keramik, B (4) 87.
Pulfrich, M. Destruction of coke oven walls, A (9) 198.
Purdy, R. C. Essentials of meeting competition, A (10) 229.

Quensel, R. Synthetic precious stones, A (9) 211.
Quigley, W. S. Refrac. cements, A (2) 20.

R. M. Italian cement plants, A (12) 272.
Radley, E. G. Chem. analysis. (Glauconite from green sand near Lewes, Sussex), A (3) 49.
Rakusin, M. A. Adsorbent properties of clay, A (11) 267.
Rankin, G. A. A study of chem. reactions in burning of lime and Port. cement, A (4) 71.
Raphélis-Soissan, L. de. Enameling, P (2) 32.
Ratner, L., and Schwartz, M. App. for testing abrasives, P (6) 136.
Rawling, S. O. Elec. htg. and controlling app. for small thermostat, A (2) 7.
Rawlins, C. D. Chem. indus. in Greece, A (3) 44.
Rebuffat, O. Silica brick, P (3) 53.
Reece, J. A. See Rowley, C. A.
Reed, C. J. Process of and app. for htg. mat., P (9) 207.
Rees, W. J. Critical rev. of the provisional specif. for glass refrac. mats., A (5) 94; Durability of refrac., A (6) 129; Molding sands, A (6) 130; Refrac. for coke-oven construction, A (2) 18; Refrac. for elec. fur., A (3) 52.
Reid, T. A. Elec. fur., P (9) 207; Elec. resist. fur., P (6) 136; Resistor-supporting means, P (9) 208.
Rennerfelt, I. Elec. arc fur. adapted for melting zinc, P (2) 20; Elec. fur., P (6) 132; Elec. fur. adapted for htg. crucibles for metal or ceram. articles, P (3) 53; Elec. resist. fur. adapted for heat-treating metals, P (2) 20; Elec. fur. opern. in metal refining, P (2) 20.
Réol, J. Press for forming briquettes, P (8) 186.
Requa, R. S. Hollow-tile wall construction, P (12) 281.
Reutlinger, E. Improvement of the firing procedure for whiteware kilns, A (11) 258.
Rhead, F. A. Romance of pottery, A (7) 142.
Richardson, W. D. Working wet lime clays, A (2) 26.
Richmond, H. A., and Macdonald, R., Jr. Aluminous abrasive and method of making same, P (12) 272; Artificial corundum, A (3) 54.
Richmond, H. D. The action of potassium carbonate on lead glass, A (11) 247.
Ricketts, E. B. Rational basis for coal-purchasing specif., A (6) 139.
Ricklefs, O. Use of low-grade fuels in brick indus., A (2) 7.
Riddell, W. C., and Schuette, C. N. Production of caustic calcined magnesite in the Scott fur., A (6) 121.
Riddle, F. H. Porcelain, P (3) 55; Production of porcelain for elec. insulation, A (9) 199; The production of porcelain for elec. insulation, A (11) 258.
Rideal, E. K. Flow of liquids under capillary press., A (5) 112.
Rideal, E. K., and Thomas, W. Adsorption and catalysis in fuller's earth, A (3) 49.
Rie, E. Influence of surface tension on melting and freezing, A (11) 267.
Rieke, R. Influence of compn. upon properties of porcelain, A (2) 21; Properties and testing or refrac., A (11) 256.
Ries, H., and Bayley, W. S. High grade clays of east. U. S., A (3) 49; High-grade clays of the east. U. S. with notes on some west. clays, B (5) 108.
Rigby, T. Drying clay, P (3) 51.
Rimbach, R. Research bur. lab., Stand. Steel Car Co., A (5) 115.
Rishkevich, E. Bavarian graphite, A (5) 100.
Rittman, A. J. Glass indus. fuel waste, A (4) 73; The why and wherefore of seedy glass during melting, A (12) 275.
Robinson, A. H. A. Titanium. Canada, A (9) 209.
Rochow, W. F. Refrac., with special ref. to recent developments, A (2) 15.

Rockwood, N. C. New "wet" process of lime manuf., A (10) 216.
Roesch, A. App. for controlling htg. of vulcanizers or other app.; App. for controlling humidity of air, P (3) 48.
Rohn, W. Antimony yellow glazes, A (5) 103.
Rohn, W. Elec. induction fur. for ht.-treating or melting metals, P (3) 53.
Rose, H. J. See Sperr, F.
Rose, J. B. Making and marketing of common brick, A (2) 24.
Rosenhain, W. Hardness and hardening, A (10) 230.
Rosenthal, E. See Singer, E.
Rosselli del Turco, C. See Parravano, N.
Rossman, W. F. Refrac. mat. for zinc retorts, P (3) 53.
Roth, E. Studies of changes in phys. properties of hard porcelain caused by varying feldspar from NA to K feldspar and by varying burning treatment, A (5) 102.
Rousso, J. Counting device, P (10) 216.
Rowley, C. A. See Crowley, J. P.
Rowley, C. A., and Reece, J. A. App. for cutting sheet glass, P (7) 153.
Rozlozsnik, P. Prelim. rept. on bauxite occurrences of N. Bihar, A (2) 15.
Ruff, O. Process of producing zirconium dioxide, P (8) 189.
Ruff, O., Schmidt, G., and Mugdan, S. Studies at high temp. XV. The vapor press. of the alkali fluorides, A (2) 13; Studies at high temps. XV. The vapor press. of the alkali fluorides, A (4) 82.
Rule, J. F. App. for gathering and transferring molten glass, P (7) 154.
Ryde, J. W., and Huddart, R. Anal. of bubbles in glass, A (8) 176.
Ryon, E. A. Glass-grinding mach., P (4) 74.

Sadler, A. See Thompson, E. A.
Saito, Y. Brick kiln, P (7) 167.
Sampson, E. Marketing of chromite, A (6) 128.
Sandstrum, C. O. Kiln efficiency discussed, A (2) 35.
Sato, D. Diatomaceous earth produced in the Islands of Oki, A (11) 264.
Sato, T. Improvement in kiln for burning brick and similar wares, P (7) 167.
Sauvageon, V. M. Elec. fur., P (11) 261; Glass manuf. with elec. radiation fur., A (5) 95.
Saxe, C. W. Ceram. ware and method of making same, P (7) 162.
Saxton, C. Glass forming machines, A (7) 152.
Scharschu, C. A. Refrac. mat. for fur., P (6) 131.
Schild, A. Grinding and polishing of plate glass, A (10) 217.
Schmidt, B. Clay flux for brick compn., P (6) 128.
Schmidt, G. See Ruff, O.
Schmidt, J. Air preheating for small indus. fur. htd. with water-gas and with coal, A (4) 79.
Schneider, R. Gas producer and fur. practice in glass indus., A (9) 195.
Schoppe, G. See Nacken, R.
Schreiber, P. D. of a mixt. of oxygen, carbon monoxide and carbon dioxide. Reln. between the vol. per cent and wt. per cent, A (6) 138.
Schrero, M. Water glass. A bibliography, B (7) 170.
Schriever, W. Lab. optical pyrometer; notes on its design and operation, A (9) 202.
Schrot, P. Adhesives, A (2) 3.
Schuen, W. An elec. fur. for the melting of quartz goods, A (11) 246.
Schuette, C. N. See Riddell, W. C.
Schultes, W. New diagrams for the valuation of fuel gas and flue gas anal., A (11) 268.
Schumacher, E. E. See Harris, J. E.
Schurecht, H. G. Bricks for malleable fur., A (2) 18.
Schwaiger, A. Elec. porcelain, A (2) 23.
Schwartz, M. See Ratner, L.
Schwarz, M. V. Jointed microscope for lab. and workshops, A (2) 9.
Schwarz, R., and Brenner, A. Synthetic aluminium silicate and its relations to kaolin, A (11) 267.
Schwerin, B. Elutriation of clay and kaolin, P (12) 290.
Scott, A. Application of colloid chemistry to mineralogy and petrology, A (5) 112.
Scott, G. C. Glass finishing and polishing machine, P (11) 250.
Scott, W. S. Development of indus. elec. htg. for low temp. enameling, A (3) 64.
Searle, A. B. Manuf. and uses of abrasive materials, B (7) 162.
Searles-Wood, H. D. Sand lime brick, A (12) 280.
Seaton, M. Y. Magnesium oxychloride cements, A (7) 147.
Seede, J. A. Elec. fur. app. and method of operating same, P (12) 285.
Selch, E. Dissoc. of clay by lime, A (2) 10.
Servange, H. Lime bricks, A (2) 32.
Seydel, R. Draft, resist. to draft, and progression of fire in annular kilns, A (2) 7.
Shakespear, G. M. Elec. carbon dioxide recorders, A (3) 47.
Sharp, C. L. Muffle leer fur. adapted for annealing glass, P (7) 155.
Shaw, L. I. See Jackson, F. G.
Sherwin, R. S. Alumina from low-grade bauxite or clays, A (3) 54.
Sherwood, C. J. Burner, P (9) 208.
Shigemune, R. Comparative examn. of structure of Jap. and foreign porcelains, A (7) 162.
Shimazu, G. Process of mfg. optical glasses, P (3) 63.
Shinagawa, Y., and Yoshizaka, S. Method of making wares of stones, P (3) 55.
Shorkey, F. A. Graphic method for computing ht. balance, A (11) 268.
Siemens, H. von, and Zander, H. Prepn. of pure zirconium oxide, A (9) 198.
Silica Syndicate, Ltd. Sealing elec. conductors into quartz, P (3) 63.
Simpkin, N. See Sinnatt, F. S.
Sims, C. E. Pilot-light control for fur. electrodes, A (4) 80.
Singer, F. Ceram. ware for mach., A (12) 289; Die Keramik im Dienste von Industrie und Volkswirtschaft (Ceramics in the Service of Industry and National Economy), B (10) 233.
Singer, F., and Rosenthal, E. Phys. properties of porcelain, A (2) 22.
Sinnatt, F. S., Owles, A. B., and Simpkin, N. The melting point of coal ash, A (11) 256.
Sjögren. H. Artificial precious stones, A (2) 7
Slater, W. A., Hagener, A., and Anthes, G. P. Test of a hollow tile and concrete floor slab reinforced in two directions, A (4) 75.
Slaughter, G. B. See Meigs, C. C.
Smalley, E. L. Ceram. firing in elec. fur., A (5) 105; Principles of high temp. fur. design, A (2) 19.

Smith, C. D. Producer gas as fuel for glass indus., A (3) 62.
Smith, G. W. See Greenburg, L.
Smith, R. D. Mold, P (8) 179.
Smith, T. Dispersion formulas and the secondary spectrum, A (2) 29.
Smith, W. Carbonized brick, A (8) 182; New refrac. mat., A (5) 101; A (12) 282.
Snyder, F. T. Elec. fur., P (6) 131.
Sorberg, E. See Benedicks, C.
Sortwell, H. H. Amer. and Eng. ball clays, A (5) 101; Properties of some ball clays, A (2) 24.
Soubier, L. D. App. for and method of producing charges of molten glass, P (4) 74; Drawing continuous sheet glass, P (11) 248; Means for transferring glass to molds, P (8) 178; Method of and means for feeding molten glass, P (7) 154; See Ferngren, E. T.
Spackman, H. S. Alca cement, A (8) 175.
Sperr, F. W., and Rose, H. J. Elec. fur., P (6) 136.
Spindler, M. Firing and ht. econ. of the tunnel kiln, A (2) 4.
Splichal, J. Data on colloidal clays, A (2) 13.
Springer, L. Simple method for estn. of soda content of potash, A (2) 13; The staining and etching of glass, A (11) 245; Yellow etching compd., A (2) 23.
St. Reiner. Calcium aluminium silicate and zeolite question, A (9) 210.
Staff Article. Automatic kiln firebox, A (7) 158.
Stafford, C. S. Fur. for molten glass, P (6) 126.
Stahl, C. J. Flattening stones, A (11) 245.
Stansbie, J. H. Elec. fur., A (2) 19.
Stark, J. Die physikalischtechnische Untersuchung keramischer Kaoline, B (7) 169.
Steelman, L. Leer, P (8) 176.
Steger, W. Detn. of softening temp. of refrac. mats. under load, A (3) 52.
Steinberger, L. Insulator, P (8) 184; Line insulator, P (12) 285.
Steinhardt, A. Elec. htd. ceram. ware, P (6) 134.
Stenhouse, T. Method and app. for drawing glass cylinders, P (10) 220; Method of and app. for supporting glass cylinders, P (10) 220.
Stern, E. Viscosimeter, A (9) 201.
Stevens, E. P. Kiln, P (11) 262.
Stevenson, W. C. See Larmour, H.
Stocke, J., Jr. Brick-surfacing mach., P (8) 180.
Straight, M. T. Truck for handling hollow blocks and tile, P (10) 222.
Stratton, S. W. Annual rept. of the director of Bur. of Stand., 1922, A (4) 84.
Strickland, D. M. Earning power of research as demonstrated by experience of Amer. Rolling Mill Co., A (5) 117.
Stripe, W. C. Suspended fur. roof, P (8) 183.
Strock, E. J. Quarry blasting, A (10) 229.
Strong, A. P. See Poppenhusen, H. A.
Stromboli, A. Fiat elec. steel fur., A (4) 80.
Stubbs, A. J. Pottery; pigments, P (2) 23.
Sturtevant, T. J. Separator, P (8) 187.
Sugizaki, M. Waterproof tile, P (6) 121.
Sullivan, A. B. See Hartman, M. L.
Sullivan, A. P. Elec. cement, P (12) 274.
Sullivan, E. C., and Taylor, W. C. Glass, P (3) 64; Glass, P (7) 155.
Sullivan, W. J. App. for transporting and unloading brick, P (4) 78; Brick kiln and method of setting and burning, P (8) 181.
Sumner, W. E. Floor covering mat., P (6) 122.
Suzuki, T. On clay, A (11) 263.
Swientoslawski, W. New data on thermochemistry, A (11) 268.
Sylvany, R. New type of Fr. elec. fur., A (4) 79.
Syrkin, J. K. See Budnikov, P. P.

Tadokoro, Y. On thermal properties of refrac. at high temps., A (7) 159.
Taggart, A. F., and Gaudin, A. M. Surface tension and adsorption phenomena in flotation, A (11) 268.
Tait, W. J. Safety locking device for filter press., A (9) 202.
Takahashi, R. Elastic cement, P (6) 121.
Takahashi, S. Cracking and corrosion of glass pots, A (11) 245; Temp. in pot fur., A (7) 151.
Takamatsu, T., and Kuwayama, M. On refractory cement, A (11) 254.
Takita, I., and Wataya, M. Utilization of a waste alumina, A (11) 269.
Tammann, G. Constitution of silicates, A (9) 210.
Tammann, G., and Pape, W. Silica studies. I. Loss of water of kaolin and its behavior in solid condition toward carbonates and oxides of alkaline earths, A (11) 266.
Tanaka, H. Isolation of alumina from clay, P (6) 138.
Tauber, A. How flower pots are manufd., A (2) 22.
Taylor, M. A. Prob. of continuous kiln burning, A (7) 166.
Taylor, R. L. Bldg. brick and process of making same, P (11) 240.
Taylor, T. S. Stimulating research by organization, A (3) 46.
Taylor, W. C. Glass, P (3) 64; P (7) 155; Glass, P (7) 155; Glass compn., P (6) 126; Glass and process of making same, P (8) 178.
Taylor, W. C. See Sullivan, E. C.
Tefft, C. F. Darlington Clay Products Co. II, A (10) 222; Equipment and methods used at Darlington Products Co., A (7) 156–57.
Teisen, T. Fur., P (12) 286; Improvements in the design of recuperative glass pot fur., A (6) 123.
Tenen, H. T. Classifying and measg. color by the Ostwald method, A (6) 120.
Testrup, N. China clay, P (7) 170.
Thatcher, H. S. Plaster or cement, P (7) 148.
Theisen, T. Treatise on the design of pot arches, A (12) 275.
Thiele, R. Continuous fur. for burning cement, P (9) 194.
Thomas, W. See Rideal, E. K.
Thompson, E. A., and Sadler, A. Chem. and phys. characters of bentonite, A (10) 229.
Thompson, J. G. Prelim. study of zirkite ore, A (5) 111.
Thomson, E. Fused quartz, silica glass or fused quartz, A (7) 152.
Thorvaldson, T. Effects of alkali on concrete in prairie provinces, A (2) 33.
Tiffany, L. L. Viscosimeter, P (2) 10.
Tillyer, E. D. See Wells, J. C.
Tippmann, F. Detn. of the suitable fineness of grinding of mat. used in the manuf. of cement, A (11) 239; The fine grinding of cement raw mix, A (11) 239.
Travers, M. W. Casing of opal on flint glass, A (2) 26; Clouding of table-working glass tubing

in blowpipe flame, A (3) 59; Ht. balance of plant consisting of air-steam gas producer and glass tank fur., A (3) 59.
Treat, F. H. Gas producer, P (12) 286.
Treischel, C. C. Porcelain, P (3) 55; P (10) 226.
Trillich, H. Color designation, A (4) 70; A (11) 236.
Trinks, W. Ht. balances of blast fur. and steel plants, A (3) 46.
Troland, L. T. Rept. of Comm. on colorimetry for 1920–21, A (2) 8.
Tschoplowity, F. Thermal capacity of bricks, A (9) 197.
Tucker, G. M. Effect of nickel salts on color, A (8) 183.
Tumura, G. Brick, B (7) 162.
Turner, E. Symposium on casting, A (12) 282.
Turner, W. E. S. Brit. glass indus.; its development and outlook, A (5) 93; A (10) 218; Casing of opal on flint glass, A (2) 26; Causes of secondary boil, A (2) 27; Critical examn. of methods commonly used in detg. durability of glass, A (3) 60; Glass industry, A (3) 58; Glass and metal, A (5) 92; Heat resisting glasses, A (6) 125; A (7) 149, A (10) 218; Influence of saltcake on decolorizing action of selenium, A (2) 27; Specif. in the Brit. glass indus., A (12) 275.
Turner, W. E. S., and Cousen, A. Production of colorless glass in tank fur., A (6) 124.
Turner, W. E. S., Dimbleby, V., and Dickenson, A. W. Mixing of batch, A (6) 123.
Turner, W. E. S., and Hodkins, F. W. Some difficulties of the interpretation of autoclave results, A (5) 92.
Turner, W. E. S., and Wilson, T. E. Action of various analytical reagents on chem. glassware, A (2) 27; Action of various analytical reagents on chem. glassware, A (3) 60.
Turner, W. E. S. See Cousen, A.; See Dickenson, A. W.; See Dimbleby, V.; See English, S.; See Hodkin, P. W.
Twyman, F. App. for controlling annealing of glassware and annealing without pyrometers, A (3) 60.

Uchida, T., and Arimoto, K. Study of acid-resisting enamels, A (11) 240.
Ueda, K. See Hagiwara, K.
Unger, M. Linings for induction fur., P (2) 21.
Urban, W. See Berl, E.
Uyeda, J. Study of translucent hard-faience glaze, A (7) 164.

Valentine, I. R. Elec. fur., P (10) 227.
Van Dusen, M. S. Simple app. for comparing the thermal condy. of metals and thin specimens of poor conductors, A (5) 113.
Van Marle, M. Continuous annealing fur., P (3) 64.
Van Nieuwenburg, C. J. Thermo-resistant glass, P (11) 248.
Ver Mehr, J. Building brick, block and the like, P (12) 281.
Vernon, H. M. Atmospheric conditions in potters' shops and efficiency of various types of drying stoves, A (6) 133.
Visser, C. K. Weathering of Belgian bricks, A (2) 7.
Vitali, G. New elec. fur. of Fiat works; New steel elec. fur. of Fiat works, Turin, A (2) 19.
Vogel, O. Pickling bath for iron, P (11) 242.
Vogt, J. H. L. Phys. chemistry of the crystn. and magmatic differentiation of igneous rocks, A (5) 107.
Vosmaer, A. Elec. pptn. of dust, A (2) 8.

Wadsworth, C. The 12-hr. shift, A (2) 5.
Waeser, B. Commercial electro-thermic process, A (5) 117; Tech. thermoelec. process, A (2) 19.
Wagner, W. F. Masonry structure, P (7) 158.
Walker, T. L. Development of mineralogical methods, A (8) 188.
Wallace, A. M. Largest brick plant in the world, A (5) 114.
Wallace, F. S. Method and means for handling and hacking bricks, P (12) 281.
Walther, K. Formation of emery observed at an occurrence of corundum rock in Uruguay, A (10) 225.
Wang, G. Scien. aspects of China's ancient pottery indus., A (6) 134.
Ward, H. See Goucher, F. S.
Warga, K. Enameling, P (12) 274.
Warren, J. A. Crushing and grinding mach., P (9) 208.
Warrin, E. Metallic decorations on china or glass, P (6) 126.
Washington, H. S. Chem. anal. of rocks, B (5) 114; Chemistry of the earth's crust, A (5) 107.
Wataya, M. See Takita, I.
Watson, J. Cements and artificial stone, B (5) 92.
Wattebled, M. F. Firing of bldg. brick in Hoffmann kilns, A (11) 251.
Watts, A. S. Factory prepn. and burning of whiteware bodies, A (2) 22.
Weber, B. F. Method of and means for making bricks, P (9) 196.
Wedgwood, P., and Hodsman, H. J. Detn. of volatile matter in fuels, A (6) 139.
Weed, J. M. New induction fur., A (5) 100.
Weeks, L. System of kilns, P (9) 200.
Weigel, O. The prob. of the combination of water in zeolites, A (12) 287.
Weigel, W. M. White clay indus. in vicinity of Langley, S. C., A (2) 14; A (3) 54.
Weller, H. O. Sand-lime bricks, A (2) 33.
Welles, C. E. Fire-resisting compn., P (6) 140.
Wells, J. C., and Tillyer, E. D. Antaeus glass, P (8) 177.
Wentzel, C. E. Fur. gas producer, P (8) 187.
Wescott, H. P. Measurement of gas and liquids by orifice meter, B (5) 105.
West, C. J. Fine and research chem. A (11) 266.
Westman, A. E. R. Reln. between current, voltage, and length of carbon arcs, A (8) 185.
Wetmore, M. P. Glass-blowing mach., P (8) 177.
Whatmough, W. A. Reannealing of glass, A (3) 60.
Whitby, B. R. Molding and coloring artificial stone, P (3) 68.
White, C. A. Refractory compn., P (3) 53.
White, G. N. Chem. procelain, A (6) 133; A (11) 258.
Whithey, W. H. Some criticism of the use of the autoclave as method of testing glassware, A (5) 92.
Whittemore, J. Drawing sheet glass, P (7) 155; Method and app. for drawing and flattening sheet glass, P (12) 277.
Wikoff, A. G. Manuf. and application of lightweight concrete slabs, A (11) 238; Fire clay

refrac., A (2) 15; Manuf. of fire clay refrac., A (2) 15.
Wilcox, A. C. Gathering and delivering app. for molten glass, P (11) 249.
Wilhelm. Estn. of hydrogen in producer gas, A (12) 287.
Willett, A. H. Fire-brick arch, P (11) 257.
Willetts, H. G. Glass-melting tank, P (11) 248.
Williams, G. A., and Ferguson, J. B. Diffusion of hydrogen and helium through silica glass and other glasses, A (2) 14.
Williams, W. D. Light metal alloys for pistons, A (3) 50.
Wilson. See Baillie.
Wilson, A. W. G. Sask. clays and new indus., A (10) 229.
Wilson, G. V. Bauxite clay (Ayrshire), A (2).11; Barytes and witherite, A (5) 105.
Wilson, H. Our ceram. family, A (10) 229.
Wilson, T. E. See Turner, W. E. S.
Winchell, N. H., and A. N. Elements of optical mineralogy, B (5) 108.
Winder, S. E. Glass mfg. mach., P (4) 74.
Windett, V. Gas producers and producer gas, A (6) 139.
Winslow, C. E. A. Health problems of indus., A (8) 175.
Wirrer, G., and Moyer, A. C. Scleroscope, P (6) 136.
Withey, W. H. Use of the autoclave test as a method of testing glassware, A (12) 277.
Witt, J. C. Effect of sulfur compd. on cement, A (3) 65; Function of lab. in cement manuf., A (3) 65; Some generalizations on the influence of subs. on cement and concrete, A (3) 65.
Wolbach, M. O., Jr. See Bingham, E. C.
Wolever, F. H. Pulverizing mill, P (12) 286.
Wolfe, H. G. Importance of grinding, A (2) 5.
Wollaston, T. R. Filtration, B (5) 117; Some developments in gas producers, A (8) 185.
Wood, R. F. Smelting silica bricks with reverberatory slags in a copper blast fur., A (7) 161.
Woodson, J. C. Ht. insulating mats. for elec. heated app., A (5) 104.
Worcester, W. G. Ceram. work, A (12) 289; Saskatchewan clays, A (4) 82.
Wright, F. See Moore, W. E.
Wright, W. J. Oil shade, A (4) 81.
Wyatt, J. R. Induction fur., P (6) 132.
Wyatt, J. R. See Clamer, G.
Wyer, S. S. Smithsonian Institution's Study of Natural Resources applied to Pennsylvania's Resources, B (5) 108.

Yamamoto, R. Magnesia plaster, P (6) 122.
Yamamoto, T. Continuous cooling fur. for glass vessels, P (6) 126.
Yanaka, R. See Mano, N.
Yashore, Tamotsu. Rept. of expts. with gas-producer, A (3) 44.
Yokoi, I. Process of mfg., P (3) 57.
Yoshioka, T. Glass, P (7) 155.
Yoshizaka, S. See Shinagawa, Y.
Young, G. J. Manganese dioxide produced by chem. process in Calif., A (6) 139.
Young, J. M. Glass-blowing mach., P (10) 221; Take-out and delivery device for glass blowing mach., P (10) 221; Take-out and steadying device for glassblowing mach., P (10) 221.

Zander, H. See Siemens, H. von.
Zakharoff, A. A. Building drier over kiln, A (5) 97.
Zeh, E. W. Power tile press., P (9) 203.
Zschimmer, E. Natural constants and tech. constants of glasses, A (2) 28.
Zulauf, R. Enamel-coated writing tablets, P (6) 122.

SUBJECT INDEX TO ABSTRACTS

Abraded glass surfaces, structure of, A (2) 30.
Abrasive, aluminous, P (12) 272.
articles with glue as binder, P (12) 272.
grinding wheel test device, P (8) 172.
safety tread tile, P (6) 120.
wheel, segmental, P (12) 272.
Abrasives, aluminous, process of mfg., P (8) 172.
app. for testing, P (6) 136.
artificial corundum, P (3) 54.
and polishing powders for glass, A (2) 29; A (7) 152.
a statistical review, A (2) 21.
Absorption test on common brick, A (3) 55.
Accelerated test, disintegration of cement in, A (3) 66.
Acceleration of vulcanization, P (10) 230.
Accelerators, process for making vulcanization, P (7) 170.
Acid elec. fur. practice, A (2) 18.
proof cements, A (11) 238.
resisting enamels, A (11) 240.
Acidic reaction of Japanese acid clays, A (11) 266.
Adsorbent properties of clays, A (11) 267.
Ajax-Wyatt in brass fur. mill casting shop, A (5) 100.
Alca cement, A (8) 175.
Alkali, effects of concrete in prairie provinces, A (2) 33.
fluorides, vapor press. of, A (2) 13.
lakes of Texas, A (9) 209.
metal silicate, manuf. of, P (11) 265.
production in blast furn., P (3) 64.
Alumina, effect of in retarding devitrification of glass, A (6) 123.
and ferric oxide sepd. from lime, A (5) 109.
isolation from clay, P (6) 138.
from low grade bauxite clays, P (3) 54.
refrac., P (6) 132.
utilization of waste, A (11) 269.
Aluminium, A (2) 12.
hydroxide and aluminic acid, A (2) 14.
manuf. of in Russia, A (5) 90.
ores in Hungary, A (2) 13.
Aluminous abrasive and method of making, P (12) 272.
cement, A (5) 91.
Aluminum chloride, app. for manuf. of, P (12) 272.
Alunite, chemistry of, A (2) 12.
shales, aluminium from, A (2) 12.
treating, P (11) 256.
Analysis of bubbles in glass, A (8) 176; A (12) 276.
of mine and car samples of coal collected in 1916–1919 incl., A (2) 5.
and purification of zirconium oxide, A (5) 111.
quantitative, of clays, A (5) 110.
rapid detn. of potash, A (7) 169.
estn. of iron and alumina in clays, A (9) 211.
rational, centesimal use of microscope, A (8) 188.
of rocks, etc., rept. from chem. lab. of the Royal Hungarian Geol. Sur., A (2) 14.
sepn. of iron and alumina from lime, A (5) 109.
of silicates, phys. chemistry of thermo-decompn., A (12) 287.
simple method for the estn. of soda content in potash, A (2) 13.
sulphate, chloride and carbonate radicals in soda lime glasses, A (11) 265.
tested methods of non-ferrous metallurgical, A (5) 114.
Analyzing flue gases, app. for, P (6) 136.
Anhydrite as bldg. mat., A (2) 32.
Annealing fur., continuous, P (3) 64.
of glass, A (3) 60; A (3) 62; A (10) 217.
glassware without use of pyrometic app. for, A (3) 60.
and ht. treatment of gage glass, A (2) 28.
a modern cycle, A (5) 96.
temps. of boro-silicate glass, effect of boric oxide on, A (12) 275.
Antaeus glass, P (8) 177.
Antimony oxide, color given to glass, A (11) 244.
yellow glazes, A (5) 103.
Apparatus, elec. htg. and controlling for small thermostat, A (2) 7.
for meas. high temp., A (2) 9.
a new thermo-regulator for the thermostat, A (2) 8.
refractometer for detn. of solid and liquid subs., A (2) 8.
a simple, for testing refractive indices of liquids, A (2) 9.
Arch brick, P (11) 257.
Architecture, ceram. in the field of, A (6) 120.
Architectural pottery process of mfg. rough surfaced, P (3) 57.
Arsenic, v. p. of, A (9) 210.
Art, the application of self-luminous colored decorations, A (3) 63.
and its application to the pottery indus., A (6) 120.
glass paintings, processes and methods of medieval, A (6) 124.
Artificial stone, mat. for, P (3) 67.
molding and coloring, P (3) 68.
Asbestos cement, P (3) 67.
Autoclave test for durability of glass, some aspects of, A (12) 277.

Ball clays, Amer. and English, A (5) 101.
properties of some, A (2) 24.
Ball and pebble milling for pulverizing and mixing, A (2) 3.
Barium, rocks rich in, A (2) 11.
and strontium silicates of, A (4) 83.
Barytes, occurrence, mining uses, A (6) 139.
standardization of test, A (5) 110.
and witherite, A (5) 105.
Bauxite, A (7) 168.
Ayrshire, A (2) 11.
clays, alumina from low grade, P (3) 54.
deposits of Italy, A (4) 81.
dissociating, A (10) 214.
European products, A (8) 181.
kaolins, clays, loss on ignition and porosity of, A (4) 83.
and limestone used in Alca cement, A (8) 175.
occurrence, mining and uses, A (6) 128.
practical anal. of, A (9) 211.
preliminary rept. on occurrences in N. Bihar, A (2) 15.
production of, A (10) 214.
refrac. with bentonite, P (6) 132.
used in fast hardening cement, A (7) 145.
Bentonite, bond for bauxite refrac., P (6) 132.
chem. and phys. character of, A (10) 229.
in spark plug insulation, P (4) 77.
used in de-inking of paper, A (3) 44.
Beryl, component of porcelain, P (10) 226.

in elec. porcelain, P (3) 55.
use of in porcelains, P (3) 51.
Bifocal lens blanks, app. for manuf. of, P (8) 177.
Binary systems, of Na_2WO_4–Na_2SiO_4, A (2) 36.
Bituminous sands, A (5) 105.
Blasting, quarry, A (10) 229.
Block, bldg., P (10) 222.
Boiler house, cause and prevention of smoke in, A (2) 4.
Boilers, application of pulverized coal to, A (2) 7.
Borax and boric acid, process for the manuf. of, P (8) 189.
Boric oxide, anal. of glasses rich in, A (12) 275.
glasses, a study of the melting and working properties of, with special ref. to the boro-silicates, A (12) 275.
influence on annealing temps. of boro-silicate glasses, A (12) 275.
Boro-silicate glass, improvement in, P (3) 63.
in ovenware, P (8) 176.
Brass wts., protection of, A (5) 116.
Brick, absorption test of common, A (3) 55.
app. for transporting and unloading, P (4) 78.
bldg. block and construction, P (9) 197.
bldg. mats. in Czechoslovakia, A (12) 280.
block and the like, P (12) 281.
burning with electricity, A (5) 105.
channel, P (8) 180; P (11) 254.
clay flux for, P (6) 128.
products in Ger., A (7) 157.
clinker, A (10) 222.
common, making and marketing of, A (2) 24.
Darlington Clay Products Co., A (10) 222.
dies, construction and adjustment, A (9) 195.
drying, app. for, P (12) 281.
equipment and methods used at Darlington Clay Products Co., A (7) 156.
face, manual of construction, B (7) 159.
faced metallic trim, P (9) 196.
firing in Hoffmann kiln, A (11) 251.
for forges and annealing fur., A (3) 56.
for fur. construction, P (9) 209.
wall, P (11) 256.
of ground clinker, P (6) 122.
handling app., P (8) 180.
hollow wall, P (9) 197.
improvement in kiln for burning, P (7) 167.
indus., use of low grade fuels in, A (2) 7.
insulating, highly porous, A (12) 280.
interlocking, P (4) 75; P (4) 76.
kiln, P (7) 167.
lime, A (2) 32.
method of setting and burning, P (8) 181.
machine, P (9) 196.
microscopic structure of, A (11) 253.
plant, largest in world, A (5) 114.
at Vanport, Pa., A (6) 128.
prevention of efflorescence on, P (3) 57.
roads for Britain, A (6) 127.
salt glazing, A (6) 127.
sand face, manuf. of, A (11) 253.
sand lime, A (2) 33; A (12) 280.
manuf. of, A (2) 26.
specif. for in Austria, A (11) 252.
scum due to vanadium, A (3) 57.
shapes, method of molding, P (8) 182.
specif., A (7) 156.
surfacing mach., P (8) 180.
texture, method of forming, P (10) 222.
and tile in Dixie, A (10) 228.
mach. P, (8) 181.
mech. burning of, A (7) 166.
unloading kiln app. for, P (8) 179.
use of liparite in, P (7) 162.
use of waste slate, A (7) 156.
weathering of Belgian, A (2) 7.
white glaze for red burning clays, A (6) 126.
work, govt. specif. for all kinds of, A (10) 222.
Brickmaking app., P (8) 181.
in Czechoslovakia, A (9) 196.
Bricks, glazing, A (6) 128.
handling and hacking, method of, P (12) 281.
method for burning, P (7) 167.
and means for making, P (9) 196.
from oil shale, A (11) 251.
Brickworks, coal saving methods in, A (2) 2.
Briquettes, press for forming, P (8) 186.
British Columbia clay, A (5) 106.
a fossil resin from, A (5) 105.
Brown glass milk bottles, A (3) 59.
Bubbles in glass, anal. of, A (8) 176.
Building block, P (7) 158; P (10) 222.
construction, P (8) 180.
Bureau of Standards, A (4) 82.
Burner for fuel oil, P (9) 202.
Burning bituminous shale, A (6) 127.
brick with electricity, A (5) 105.
a downdraft kiln, A (2) 3.
effects, coloration, discoloration and other, A (5) 97.
of porcelain, A (4) 76.
roofing tile, A (3) 56.
in updraft kilns, A (5) 97.
of white wares and prepn. of bodies of, A (2) 22.

Calcareous clays, treatment of, A (7) 156.
Calcium chloride, effect of on strength of Port. cement, A (3) 66.
hydroxide in hardened Port. cement, A (11) 238.
sulfate, dissociation of at higher temps., A (8) 188.
Calite, a new alloy resistant to high temps., A (8) 185.
Calorimeters, P (3) 48.
Calorizing, application of to glass making processes, A (5) 96.
Canadian kaolin, A (5) 106.
Capillary pressure, flow of liquids under, A (5) 112.
Car dump, kickback, P (7) 159.
Carbon, amorphous, and graphite nature of, A (5) 99.
brick, A (2) 17.
dioxide recorder, A (2) 8.
elec., A (3) 47.
impregnated refrac., A (12) 282.
Carbonaceous refrac. for fur. walls, P (6) 132.
Carbonized brick, A (8) 182.
clay, a new refrac. mat., A (5) 101.
Carolina, South, white clay indus. in vicinity of Langley, A (2) 14.
Cast iron, growth of, A (2) 31.
Casting clay wares, A (7) 169.
porcelain tanks, P (9) 200.
symp. on, A (12) 282.
Casting of opal on flint glass, A(2) 26.
Catalysis in glass formation, A (10) 217.
Cement, and acid slags, the remelting of, A (3) 65.
Alca (Al + Ca), A (8) 175.
aluminous, A (5) 91.
asbestos, P (3) 67.
automatic vertical fur. for the baking of, A (4) 70.
behavoir of Port. under pure water, A (10) 215.

burning continuous fur. for, P (9) 194.
ht. efficiency increase in, A (2) 35.
as by-product of burning pulverized fuel, P (3) 67.
calcium hydroxide in Port., A (11) 238.
caustic magnesia, A (4) 70; A (5) 91.
chemically combined water in hardened, A (11) 238.
"ciment fondu" compared with Port., A (7) 145.
and clay tubing tests of, A (5) 98.
clinker, free, lime in, A (11) 238.
reagents used in etching for microscopic study, A (7) 143.
and concrete, vol. change of, A (2) 36.
Die Portland-zement fabrikation, B (7) 149.
disintegration of in accelerated test, A (3) 66.
dolomitic, the chemism of hardening, A (10) 214.
effect of sulphur compds. on, A (3) 65.
elastic, P (6) 121.
elec., A (3) 66.
fused aluminous, A (11) 239.
hardening, effect of low temp. on, A (10) 216.
hydraulic binding mat., A (10) 215.
increase in resist. to sea water by addition of trass, A (2) 36.
indus. in China, A (2) 35.
influence of calcium chloride on strength of, A (3) 66.
insulating, P (3) 53.
kieselguhr and gypsum, P (7) 148.
kiln insulation, A (5) 101.
system, P (11) 240.
kilns and fuel, A (2) 32.
measurement of the temps. of rotary, A (2) 35.
rotary, utilization of waste ht. from, A (2) 36.
thermochemistry of, A (2) 33.
utilization of waste ht. of, A (3) 66.
and lime, chem. reactions in the burning of, A (4) 71.
mortars, influence of hardening in steam under press., A (4) 71.
magnesia improvement in manuf. of, A (7) 148.
magnesium oxychloride, A (7) 147.
manuf., function of lab. in, A (3) 65.
of from marl, A (11) 239.
of Port., B (5) 91.
marble, P (3) 67.
mill, P (4) 78.
of Rumania, A (3) 66.
mixt. to withstand sea water, P (6) 121.
strengthening compn. for, P (6) 122.
oxychloride, P (3) 67.
paint for water proofing, P (3) 67.
pitch, P (3) 67.
plants, Italian, A (12) 272.
Port., defects in the manuf. of, A (2) 35.
effect of aeration on, A (7) 143.
tent. specif. and tests for, A (5) 90.
properties of Port., A (11) 239.
protection of against acids, A (10) 215.
quick setting, A (12) 273.
raw mix, fine grinding of, A (11) 239.
refrac. oxychloride, P (3) 53.
setting of, A (7) 146.
slag and dolomite, A (7) 144
some generalizations on the influence of subs. on, A (3) 65.
storage and transportation of, A (3) 65.
structural mat. tested, A (2) 32.
suitable fineness of grinding mat. used in manuf. of, A (11) 239.
waterproof, A (6) 120.
hardening agent, P (8) 175.
Cements, acid proof, A (11) 238.
and artificial stone, B (5) 92.
dental, phys. properties of, A (7) 148.
fast hardening, A (7) 145.
of high hydraulic index, value of, A (3) 65.
high strength, A (2) 36.
limes and plasters, B (5) 92.
refrac., A (2) 20.
the setting and hardening, A (10) 214.
Centrifugal sieve, A (3) 48.
separator continuous, P (3) 49.
Ceramic bearing, fused, P (6) 134.
compn. of natural or artificial corundum, P (3) 55.
congress (French), A (10) 229.
firing in elec. fur., A (5) 105.
industries of N. A., importance of research in the development of, A (2) 5.
Sweden, A (7) 170.
replacing cast iron, A (12) 289.
wares of China, B (4) 86.
Ceram., Amer. trend of, A (12) 272.
Chinese, B (2) 38.
in the field of architecture, A (6) 120.
Chamotte, historical sketch, of use, A (6) 122
Channel brick, P (11) 254.
Chelsea porcelain, B (4) 84.
Chemical anal. of rocks, B (5) 114.
chemical constitution of silicates, A (2) 13.
engineering text book of, B (5) 114.
glass and hard glass, A (11) 247.
indus. in Amer., A (2) 7.
in Greece, A (3) 44.
and phys. properties of commercial lime, A (2) 34.
porcelain, A (6) 133; A (11) 258.
crucible, P (6) 134.
proof stoneware, A (10) 226.
relations of kaolinite at high temp., A (2) 13.
stoneware, unique development of modern, A (3) 54.
tent. specif. for limestone, quick and hydrated lime, A (5) 91.
ware, glass, P (3) 64.
Chemist and the plant manager, A (4) 83.
Chemistry of the earth's crust, A (5) 107.
wonder book of, B (5) 117.
China, early ceram. wares of, B (4) 86.
or glass, metallic decorations on, P (6) 126.
China clay, Cornwall, A (7) 169.
deposits in Malay, A (12) 286.
drying, P (7) 170.
English, A (2) 5.
in Quebec, A (2) 12.
Chinese ceram., B (2) 38.
Chromate-albumin copying process as an etching basis for glass, A (2) 30.
Chromite crucibles, P (11) 256.
and ferro-silicon refrac. for high temp. fur., P (6) 132.
the marketing of, A (6) 128.
Chromium, color imparted to glass, A (11) 243.
group, reduction of oxides of metals of, P (8) 189.
Clay brick compn. flux for, P (6) 128.
British Columbia, A (5) 106.
and cement tubing, A (5) 98.
china in Calif., A (10) 226.

microscopical examn. of, A (10) 226.
its properties, prepn. and use, A (7) 169.
in Quebec, A (2) 12.
dissociation of by lime, A (2) 10.
drying, P (3) 51.
handling with belt conveyors, A (9) 195.
mud, A (5) 109.
phys. properties of, A (5) 110.
pit, keeping water out of, A (2) 4.
purification of, A(2) 11.
red burning, white glazes for, A (6) 126.
refining P (3) 51.
shingle, block and wall construction, P (10) 223.
tests to detn. the uses of, A (3) 44.
treating, P (3) 51.
treatment of, P (8) 190.
with deflocculating agents, P (6) 138.
white, industry in the vicinity of Langley, S Car., A (2) 14; A (3) 54.
Clays, acidic reaction of Japanese acid clays, A (11) 266.
action of ht. on, A (6) 138.
adsorbent properties of, A (11) 267.
ball, Amer. and English, A (5) 101.
bauxite, Ayrshire, A (2) 11.
calcareous, treatment of, A (7) 156.
data on colloidal, A (2) 13.
formation of, A (2) 10.
high grade of the east. U. S., A. (3) 49; A (5) 108.
lime, working of, A (2) 26.
New S. Wales, A (10) 229.
origin of, A (11) 263.
pot, provisioned specif. for, A (5) 94.
quant. anal. of, A (5) 110.
Saskatchewan, A (4) 82; A (10) 229.
Cleaning crystal and glassware, compn. of matter for, P (8) 190.
Clinker brick, A (10) 222.
use of in bricks, P (6) 122.
Clouding of table-working glass tubing in blowpipe flame, A (3) 59.
Coal, anal. of samples collected in 1916–1919, A (2) 5.
application to boiler of pulverized, A (2) 7.
ash fusibility by micropyrometer, A (6) 138.
distributors, A (11) 261.
elevators, a novel, A (11) 261.
m. p. of, A (11) 256.
powdered in the foundry, A (2) 6.
purchase specif. rational basis for, A (6) 139.
recent development of, A (5) 116.
saving methods in brickworks, A (2) 2.
in ceram. plants, A (12) 289.
Coals, Ohio, gasification of, A (5) 116.
Cobalt compds., coloring glasses with, A (7) 151.
Coke oven, refrac. for, A (2) 18.
walls, destruction of, A (9) 198.
Colloid chemistry, a bibliography, B (6) 140.
chemistry, application to mineralogy and petrology, A (5) 112.
general and indus. applications, A (5) 110.
lab. manual of, B (2) 40.
Colloid in clays effect of, on phys. properties of clays, A (5) 110.
mill and the ultra-filter press, A (5) 105.
particles, deposition of, from a soln. by means of an elec. current, A (4) 82.
Colloidal clay, A (12) 287.
clays, data on, A (2) 13.
systems in solid cryst. media, A (5) 114.
Colloids, the science of, A (2) 6.
Color, chromium, in glass, A (11) 243.
classifying and measuring by the Ostwald method, A (6) 120.
designation, A (4) 70; A (11) 236.
effect of nickel salts on, A (8) 183.
given to glass by tungsten, A (11) 242.
of iron oxides, A (2) 14.
manganese compds. in glass, A (11) 243.
meas., expts. on, A (11) 236.
research during 1922, record of, A (11) 236.
what progress the new science of has brought, A (3) 46.
Coloration, discoloration and other burning effects, A (5) 97.
and fluorescence of glass produced by β rays, A (8) 176.
Colored decorations, self-luminous, the application of in the glass and ceram. indus., A (3) 63.
glazes in the ceram. indus., A (8) 172.
Colorimetry, rept. of Comm. on, A (2) 8.
Coloring glass with nickel, A (3) 58.
glasses with cobalt compds., A (7) 151.
molybdenum on glass, A (11) 243.
process of underglaze, P (3) 55.
Colorless glass, manuf. of in a tank fur., A (10) 218.
production of with particular ref. to the use of selenium, A (5) 94.
production of, in tank fur., A (6) 124.
Colors, decorating table glassware in, A (6) 122.
mineral, A (2) 11.
Combustion ht. of and work of dissociation, A (4) 79.
Component system lime, silica and alumina, A (11) 268.
Concentrator, ore, P (11) 261.
Concrete construction, new system of, A (2) 32.
effect of alkali on, A (2) 33.
Concrete lined pipes, A (12) 273.
Conductivity, thermal, of liquids, insulators and metals, meas. of, A (2) 8.
Conservatoire Nationale des Arts et Métiers, Paris Ceram. Lab., A (12) 289.
Constants, natural and tech. of glasses, A (2) 28.
Continuous kilns, use of hot air in, A (2) 4.
Control of works operations by scien. instruments, A (5) 117.
Conveyors, belt, clay handling with, A (9) 195.
Copiapite, A (3) 49.
Copper ruby glass, A (3) 62.
Corrosion in economizers, A (2) 4.
prob. of retarding, A (4) 82.
Corundum, artificial, P (3) 54.
bearing rocks, the prochlorites of, A (10) 225.
in India, A (2) 21.
natural or artificial for ceram. compn., P (3) 55.
rock in Uruguay, A (10) 225.
Crazing of English earthware, A (6) 133.
Creative impulse in indus., B (2) 37.
Crusher steel improvement in suggest by metallographic tests, A (9) 202.
Crushers gyratory, A (2) 33.
Crushing and grinding mach., P (9) 208.
laws of, A (9) 211.
mach., P (9) 203.
strength of concrete and propn. of its mat., A (11) 238.
Crystal glazes with uranium, A (7) 142.
Crystalline alumina, graphite, fused silica and silicon carbide, refrac. compn., P (10) 226.
Crystallization and magmatic differentiation of igneous rocks, the phys. chemistry of, A (5) 107.

Crystallizing glass walls by rubbing with glass rods, A (2) 28.
Cullet, best ratio of cullet to, A (5) 93.

Damproofing concrete body, P (4) 84.
Darlington Clay Products Co., A (10) 222.
Decorated glass beads, A (5) 93.
Decorating ceram. articles, metallizing, P (8) 174.
ceram. ware fur. for, P (12) 285.
firing fur. or kiln, rapid, P (8) 185.
pottery, tool for, P (8) 184.
table glassware in colors, A (6) 122.
Decorations on china or glass, metallic, P (6) 126.
Definitions, relating to hollow tile, A (5) 97.
Dehydrating solid subs., app. for, P (4) 78.
Density of soda-lime magnesia glasses, A (10) 219.
Dental cements, phys. properties of, A (7) 148.
Devitrification caused upon the surface of sheet glass by ht., A (6) 124.
of glass, effect of alumina on, A (6) 123.
Diatomaceous earth, Canada, A (10) 230.
deposits, A (5) 106.
in Islands of Oki, A (11) 264.
manuf. and uses of, A (5) 106.
Dies, construction and adjustment, A (9) 195.
Diphasic nature of glass, A (11) 247.
Discoveries of the twentieth century, B (5) 117.
Dispersion formulae and the secondary spectrum, A (2) 29.
Dispersoid chemistry of gypsum, A (2) 36.
Dissociating bauxite laterite and argillaceous subs., A (10) 214.
Dissociation of calcium sulfate at higher temps., A (8) 188.
of clay by lime, A (2) 10.
Distillation treatment of shales, P (8) 190.
Dolomite, A (6) 129.
chem. study of, A (10) 225.
limestones and similar carbonates, characteristics for the evaluation of, A (5) 91.
and slag cement, A (7) 144.
studies on the system, A (10) 225.
theory of the formation of, A (3) 50.
utilization of, A (9) 199.
Dolomitic cements, the chemism of the hardening of, A (10) 214.
Draft, induced device, P (11) 263.
resist. to and progression of the fire in annular kilns, A (2) 7.
in rotary kilns, A (11) 261.
Draught, forced *vs.* natural, A (9) 208.
Drier over kiln, bldg., A (5) 97.
recirculation uses little power, A (12) 283.
Dry pressing refrac. shapes, A (5) 99.
Drying, and air humidity, A (7) 170.
brick app. for, P (12) 281.
clay, P (3) 51.
and conditioning mat., method of and app. for, P (12) 285.
mat. by steam and air currents, app. for, P (6) 136.
oil fuel for, A (9) 211.
plant, vacuum, A (4) 84.
stoves, efficiency of various, A (6) 133.
thin plates or other ceram. articles, app. for, P (3) 48.
Durability and compn. of glass, an extension of Zulkowski theory of reln. between, A (3) 61.
Dust, elec. pptn. of, A (2) 8.
a new instrument for sampling aerial, A (4) 77.
pptn., elec., P (3) 47.
Dynamometer for hardness testing, A (6) 135.

Economizers, corrosion in, A (2) 4.
Education, old style, an editorial, A (12) 289.
Efflorescence on bricks, prevention of, P (3) 57.
on ceram. products, A (12) 288.
due to vanadium, A (3) 57.
Elastic cement, P (6) 121.
Electric arc fur. adapted for melting zinc, P (2) 20.
blast fur., reducing ores in, P (2) 21.
cement, A (3) 66.
ceramic insulating mat., A (6) 134.
conductors, sealing of in glass, P (3) 63.
dust pptn., P (3) 47.
furnace, A (2) 19; P (9) 207; P (11) 261.
adapted for htg. crucibles and ceram. articles P (3) 53.
adapted for ht. treating metals, P (2) 20.
Ajax-Wyatt fur. in brass-mill casting shop, A (5) 100.
app. and method of operg. the same, P (12) 285.
arc, P (6) 135.
arc of the rocking types, P (6) 135.
arc type, P (12) 285.
calite, a new alloy resistant for high temps., A (8) 185.
design, principles of, for high temps., A (2) 19.
at the Fiat Works, A (2) 19.
fused aluminous cement, A (11) 239.
for high temp. melting, A (5) 100.
induction, A (5) 100.
inductive, P (6) 135.
line insulator, P (12) 285.
for melting quartz glass, A (11) 240.
melting refrac. for, A (3) 52.
method and device for htg., P (8) 186.
method of handling mat. in A (7) 166.
Moore, P (6) 131.
a new French type, A (4) 79.
opern. basic, A (2) 19.
opern. in metal refining, P (2) 20.
for ore reduction, P (2) 20.
practice, acid, A (2) 18.
practice, brass, A (7) 161.
recent developments, A (9) 198.
resist., P (6) 136; A (6) 137.
resist. crucible, P (6) 135.
resistor, P (9) 205; P (9) 206.
rotating or oscillating, P (6) 136.
steels, manuf. of, A (4) 79.
tilting arc crucible, P (6) 135.
on trunion axes, P (7) 166.
tubular resist., P (6) 135.
wall construction, P (9) 205.
furnaces, Fiat, A (4) 80.
firing ceram. wares in, A (5) 105.
present status of, A (4) 80.
refrac. for, A (3) 52.
status of, A (4) 80.
for steel, A (3) 52.
tech. thermoelectric process, A (2) 19.
glass fur., A (8) 175.
heat, its generation propagation and application to indus. processes, A (3) 46.
heating and controlling app. for small thermostat, A (2) 7.
indus. development for low temps., A (3) 64.
induction fur., P (3) 53.
linings for, P (2) 21.

insulating mats. Rept. of Comm. C-9, A (5) 104.
pptn. of dust, A (2) 8.
radiation fur., glass manuf. with, A (5) 95.
resist. fur., P (4) 81; P (9) 205.
for melting brass or copper, P (2) 20.
terminal for, P (9) 203.
steam generator, A (5) 115.
steel fur., htg., A (8) 185.
vacuum fur., molybdenum resist., A (5) 113.
Electrical carbon dioxide recorders, A (3) 47.
flue gas examiner, A (2) 8.
insulating compn., P (3) 47.
insulation, porcelain for, A (11) 258.
insulator, P (8) 184.
porcelain, A (2) 23.
manuf., some notes on, A (8) 184.
modern handling methods in the manuf. of, A (3) 55.
production of, A (9) 199.
precipitation of suspended particles from gases, P (4) 78.
properties of flint glass of d. 6.01, A (9) 195.
of silica acid sols., an invest. of, A (3) 50.
resist. mat., P (3) 53.
resistivity at high temps., A (2) 18.
Electrically heated ceram. ware, P (6) 134.
fur., the firing of ceram. products in, A (3) 45.
melted gray iron, A (4) 79.
reheating of glass, A (7) 153.
Electricity, burning brick with, A (5) 105.
Electrode protector telescoping, P (9) 205.
Electrodeposition of silver and copper on glass, A (11) 246.
Electrodes, app. for moving, P (9) 206.
pilot light control of, A (4) 80.
Electrolytes, effect on plastic clays, A (5) 108.
Electrolytic migration of sodium through glass, A (4) 72.
Electroösmosis of clays, A (6) 138.
commercial application of, A (5) 116.
Electrothermic processes, commercial, A (5) 117.
Elutriation, of clay and kaolin, P (12) 290.
the grading of powders by, A (3) 47.
Elutriator for rapid use, A (2) 9.
Emery, formation of observed at occurrence of corundum rock in Uruguay, A (10) 225.
indus. (Greece), A (10) 214.
papers, improvement of, A (5) 90.
wheel, glass shield for, A (4) 70.
Enamel, acid resisting study of, A (11) 240.
cast iron, A (11) 241.
cleaning, A (6) 122.
coating ceram. wares, P (7) 170.
effect of on transmission of ht., A (11) 242.
pickling bath for iron, P (11) 242.
removing from old and new articles, process of, P (12) 274.
rust, removing from metals, P (11) 242.
something better in smelters, A (3) 64.
Enameled app. for chem. purposes, standardization of, A (2) 31.
chem. wares standardization of enamels for, A (2) 31.
coated writing tablets, P (6) 122.
Enameling, P (2) 32.
color decorations on aluminum, P (12) 274.
the development of indus. elec. htg. for low temp., A (3) 64.
fur., P (3) 65.
furnaces, charging app. for, P (12) 274.
Enameling, method of, P (7) 149.
oven, P (7) 149.
spraying by means of gases under pressure, P (3) 65.
Enamels, correct notions on fluoride, A (11) 242.
Enamelware protector, P (8) 175.
English china clay, A (2) 5.
Etch or tarnish glass surfaces, A (2) 28.
Etching, the chromate-albumin copying process as basis of, A (2) 30.
compd. yellow, A (2) 23.
of glass, A (11) 245.
glass, note on, A (5) 96.
Excavating mach., P (8) 186.
Expansion coeff. of refrac., A (7) 159.
of glasses, anomalies in, A (6) 125.
of silica brick in coke oven, A (2) 16.
Expansion low coeff. glass, P (3) 64.

Faience, translucent hard glaze for, A (7) 164.
Fans, data for, A (2) 2.
Feeder and mixer, percentage, P (11) 260.
Feldspar, Canadian potash, A (6) 137.
high potash, Canada, A (4) 81.
a new process for utilizing, A (2) 11.
the phys. properties of hard porcelain caused by varying from sodium to potash, A (5) 102.
potash, melting of, A (3) 61.
Feldspars, chem. constitution of, A (2) 12.
Ferric oxide and alumina sepd. from lime, A (5) 109.
Fe_2O_3–SO_3–H_2O system of, A (2) 14.
Fiat electric fur., A (4) 80.
and steel fur., A (4) 80.
Fibrous wall board, P (7) 149.
Film method for measg. surface and interfacial tension, A (5) 112.
Films, the spreading of liquids and the spreading coeff., A (5) 113.
thickness of liquid formed on solid surfaces under dynamic conditions, A (5) 113.
Filter press, continuous for ceram. slips, A (12) 284.
development of, A (4) 77.
safety lock for, A (9) 202.
ultra, and colloid mill, A (5) 105.
Filter presses, standardization of, A (3) 54.
Filtration, B (5) 117.
Fire arch for fur., P (8) 182.
brick arch, P (11) 257.
disintegration, A (10) 223.
making stiff mud, A (10) 223.
clay refrac., A (2) 15.
manuf. of, A (2) 15.
resisting compn., P (6) 140.
Firing of ceram. products in elec. heated fur., A (3) 45.
ceram. wares in elec. fur., A (5) 105.
and the ht. economies in tunnel kilns, A (2) 4.
low temp. of porcelain, A (11) 258.
Flashing, fire, A (5) 97.
Flocculation meters, kinetic, A (2) 99.
Flotation, surface tension and adsorption phenomena in, A (11) 268.
Flower pots, how manufd., A (2) 22.
Flue-gas, elec. examiner, A (2) 8.
Fluidity, surface tension and reaction temps., method of calcg., A (4) 83.
Fluorescence and coloration of glass produced by β rays, A (8) 176.
Fluorides, alkali, vapor press. of, A (2) 13; A (4) 82.
Fluorspar mining in the Western states, A (11) 264.
sources of, A (4) 81.

Flux, for clay brick compn., P (6) 128.
Formation of clays, A (2) 10.
Formulas, Henley's twentieth century recipes and processes, B (2) 41.
Foundry practice, American and British, B(5) 101.
Froth flotation, sepn. of graphite by, A (4) 77.
Fuel, the dangers of powdered, A (3) 45.
gas valuation, new diagrams for, A (11) 268.
Fuel, liquid, burner, P (9) 206.
oil, burning of porcelain with, A (12) 283.
operg. continuous glass fur. with, A (5) 95.
use of in the clay indus., A (12) 288.
use of for finishing glassware, A (5) 95.
powdered coal in steam plants, A (5) 116.
producer gas for the glass indus., A (3) 62.
Fuels and cement kilns, A (2) 32.
detn. of volatile matter in, A (6) 139.
the use of low grade in the brick indus., A (2) 7.
Fuller's earth, adsorption and catalysis in, A (3) 49.
process of giving form to, P (3) 51.
Fulweiler, Walter H., awarded Grasselli Medal, A (3) 46.
Furnace, cooling chamber for, P (12) 286.
crucible for glass, P (2) 31.
for decorating ceram. ware, P (12) 285.
gas producer, A (2) 5.
glass, P (2) 31.
grate with brick inserts, P (10) 228.
for high temp., A (9) 202.
muffle, P (6) 137.
partition wall, P (11) 256.
roof, suspended, P (8) 183.
Furnaces, (see elec.)
contg. melting pots or crucibles, P (3) 64.
Fusibility of Zettlizer kaolin, effect of U_3O_8 upon A (5) 110.

Gage, glass prob., A (3) 62.
glasses, testing of, A (3) 62.
Gas analyzing app., P (3) 49.
coal, app. for scrubbing, P (6) 140.
collecting main and ascension pipe, P (4) 81.
cocks, standardization of, for laboratories, A (4) 77.
fired pottery kiln, P (3) 53.
flue and fuel, new diagrams for valuation, A (11) 268.
producer, P (4) 81, P (7) 168, P (12) 286.
fur., A (2) 5; P (8) 187.
ht. balance, A (11) 240.
ht. balance of a plant consisting of a, and a glass tank fur., A (3) 59.
practice in glass indus., A (9) 195.
report of expts. with, A (3) 44.
some developments in, A (8) 185.
producers, automatic governor for, P (6) 139.
and producer gas, A (6) 139.
theory of and its application to blast fur. opern., A (3) 46.
and vertical retort, P (6) 139.
scrubber and fume arrested, P (4) 78.
tables and charts for natural gas users, A (2) 5.
water, air preheating with for small indus. fur., A (4) 79.
works, use of refrac. in, A (9) 199.
Gases, elec. pptn. of suspended particles from, P (4) 78.
specific heat of, A (2) 14.
Gasification of Ohio coals, A (5) 116.
Gels, the forms of gas and liquid cavities in, A (3) 50.
Geology, prob. in, of service to ceram., A (11) 263.
Gilding glazed clay vessels, A (8) 174.
Glass, abrasives and polishing powders for, A (2) 29; A (7) 152.
addition of $MgBr_2$ to illuminate greenish color, P (3) 64.
alkali metal silicate production in blast fur. suitable for, P (3) 64.
anal. of, rich in boric oxide, A (12) 275.
annealing of, A (3) 62; A (10) 217.
and ht. treatment of gage, A (2) 28.
a modern cycle, A (5) 96.
Antaeus, P (8) 177.
antimony oxide, color given to, A (11) 244.
app. and method of producing charges of molten, P (4) 74.
the application of self-luminous colored decorations in, A (3) 63.
articles, app. for mfg. blown in mold, P (4) 74.
molded from granules, process of, P (11) 249.
basic silicates, indus., A (11) 246.
batch, the mixing of, A (6) 123.
batches, mixing of in factories, A (10) 219.
use of lime or limestone in, A (5) 95.
beads, decorated, A (5) 93.
bending, app. for continuous sheet, P (7) 155.
best ratio of cullet to batch, A (5) 93.
blowing, mach., P (8) 177; P (10) 221.
use of compressed air, A (4) 72.
boiler gage prob., A (3) 62.
boro-silicate, influence of boric oxide on annealing temp. of, A (12) 275.
process for making, P (8) 178.
bottle, sterilization, A (7) 152.
bubbles, anal. of, A (8) 176; A (12) 276.
calorizing, application of to processes, A (5) 96.
carboy closure, the prob. of, A (6) 125.
and ceram. ware, soly. and decompn. in complex systems, A (3) 59.
chem. and hard glass, A (11) 247.
resist., reln. between compn. and, A (12) 274.
for chem. ware, P (3) 64.
or china, metallic decorations on, P (6) 126.
the chromate-albumin copying process as an etching basis for, A (2) 30.
color given by tungsten, A (11) 242.
given by vanadium, A (11) 243.
imparted by chromium, A (11) 243.
coloring action of molybdenum on, A (11) 243.
with nickel, A (3) 58.
colorless, manuf. of in a tank fur., A (10) 218.
production with ref. to selenium, A (5) 94.
production of in tank fur., A (6) 124.
columnar structure in sandstone tank blocks after rapid ht. and cooling, A (5) 94.
composition, P (7) 155.
contg. halogen compd., A (6) 126.
containers app. for testing, P (2) 31.
for nuts, A (2) 26.
continuous annealing fur., P (3) 64.
sheet leer conveyor for, P (7) 155.
copper ruby, A (3) 62.
crucible for mfg., P (2) 31.
cutting mechanism, P (7) 153.
while in plastic state, tool for, P (10) 219.
cylinders method and app. for drawing, P (10) 220.
method and app. for supporting, P (10) 220.
dark spots in chromium green, A (2) 27.

d. of soda-lime-magnesia, calcn. of, A (10) 219.
devitrification caused upon surface by ht., A (6) 124.
diphasic nature of, A (11) 247.
discovery, A (2) 27.
dispersion formula and the secondary spectrum, A (2) 29.
drawing app., P (8) 178; P (8) 177.
sheets, P (11) 248.
durability of, a critical examn. of methods commonly employed, A (3) 60.
some aspects of the autoclave test for, A (12) 277.
effect of alumina in retarding devitrification of, A (6) 123.
of magnesia on resist. to corroding agents, A, (3) 61.
electrodeposition of silver and copper on, A (11) 246.
electrolytic migration of sodium through, A (4) 72.
embossed plate, mach. for constructing, P (11) 248.
etching, note on, A (5) 96.
examn. of by polarized light, A (3) 61.
extension of Zulkowski theory of reln. between compn. and durability, A (3) 61.
factory, chemist in, A (4) 73.
equipment, A (2) 31.
equipment, modern, A (5) 96.
old Pitkin, Manchester, Conn., preserved by D. A. R., A (8) 176.
feeding app., P (11) 250.
mech., P (12) 279.
molten, methods of, P (7) 154.
process of and app. for, P (8) 177.
finishing and polishing, P (11) 250.
flattening stones, A (11) 245.
flint d. 6.01 elec. properties of, A (9) 195.
fluorescence and coloration produced by β rays, A (8) 176.
for Ford windshields, A (5) 95.
formation, catalysis in, A (10) 217.
forming, process and app. for, P (11) 249.
mach., A (7) 152.
furnace, P (2) 31.
elec., A (8) 175.
feed trough for, P (10) 220.
for molten, P (6) 126.
new types in Eng. and Europe., A (12) 275.
tech. of, A (10) 217.
temps., A (6) 123.
furnaces contg. melting pots or crucibles, P (3) 64.
continuous, operg. with fuel oil, A (5) 95.
detecting stoppages in, by vacuum readings, A (4) 73.
recuperator for, P (4) 81.
gases evolved from known chem. compn., A (5) 96.
gold coating mixture for, P (8) 174.
grease for molds, A (2) 30.
grinding mach., P (4) 73; P (4) 74.
ht. insulating articles, manuf. of, P (11) 249.
hollow articles, P (3) 64.
panes process of making, P (8) 178.
house refrac., A (6) 129.
improvement in boro-silicate, P (3) 63.
industry, A (3) 58.
basis of progress in, A (10) 217.
British, its development and outlook, A (5) 93; A (10) 218.
British specif. in, A (12) 275.
in Ceylon, A (6) 123.
problems of the Ger., A (4) 73.
producer gas, a fuel for, A (3) 62.
progress in, A (9) 195.
influence of salt cake on decolorizing action of selenium, A (2) 27.
lamp bulbs, volume production of, A (10) 217.
lead, action of potassium carbonate on, A (11) 247.
leers ht. balance of, A (7) 153.
various types, A (5) 96.
of low coeff. of expansion, P (3) 64.
of low expansion, P (4) 73.
with low sp. gr., P (7) 155.
machinery, blowing, P (4) 74.
making in England, B (8) 179.
mach., lubrication of, A (12) 277.
sands (West Australia), A (7) 169.
manganese compds. as colorants, A (11) 243.
to selenium, A (5) 96.
manuf. in Burma, A (2) 27.
with the elec. radiation fur., A (5) 95.
ht. losses and their control, A (2) 29.
in India, A (4) 72.
steel for mold, A (7) 151.
use of halogen to modify color, P (12) 280.
medieval of York Minster, A (5) 94; A (10) 218.
melting of, A (2) 26; P (3) 64.
fur., P (6) 126.
prob. in, A (10) 218.
tank, P (11) 248.
and metal, contrast in manuf. of, A (5) 92.
joint, A (6) 125.
method and app. for flattening, P (7) 155.
milk bottles, a study of brown, A (3) 59.
a study of return and breakage prob., A (7) 152; A (8) 175.
mirror indus. (France), A (6) 123.
mirrors, chem. deposition of silver on, A (5) 93.
mold for, P (8) 179.
molds, P (3) 63.
matrix device for, P (7) 154.
molten, app. for gathering and transferring, P (7) 154.
app. for producing charges of, P (10) 220.
gathering and delivering app., P (11) 249.
method of and app. for feeding, P (10) 221.
natural and tech. constants of, A (2) 28.
necessity for preheating air in fur., A (2) 28.
neodymium oxide, use of to overcome yellow tint, P (8) 178.
non fragile, P (3) 63.
non shatterable, P (3) 64.
non shattering, A (6) 123.
optical, A (10) 217.
its properties and production, A (2) 28.
process of mfg., A (6) 123.
oven, manuf. and properties of, A (5) 95.
ovenware and holder therefore, P (8) 176.
paintings, processes and methods of medieval, A (6) 124.
plant of U. S. Sheet and Window Glass Co., Shreveport, La., A (3) 61.
plate, grinding and polishing of, A (10) 217.
polohalite, use of, A (2) 27.
pot, arches, treatise on design of, A (12) 275.
fur. door, P (12) 279.
fur. recuperative, improvement in design of, A (6) 123.
fur. temp. of, A (7) 151.
pots, cracking and corrosion, A (11) 245.

powder, A (2) 27.
pressed ring mold, P (7) 154.
Pyrex, A (4) 73; A (5) 92.
as material for chem. plant construction, A (5) 96.
quartz, A (7) 152.
elec. fur. for melting, A (11) 246.
raw mat. selection, A (4) 73.
reannealing of, A (3) 60.
refrac. mats., provisional specif. for, A (5) 94.
reheating of elec., A (7) 153.
reinforced, a new article of manuf., P (12) 277.
resist., manuf. of, P (12) 280.
resistant, procedure for making, A (12) 275.
resistivity of, A (7) 153.
for road bldg., A (2) 26.
ruby, A (2) 28.
salt cake *vs.* soda ash in soda lime glass, A (5) 93.
sand, anal. of, A (11) 246.
New Zealand, A (5) 92.
seedy during melting, A (12) 275.
sheet, app. for drawing, P (7) 154.
continuous drawing, P (12) 278.
cutting, app. for, P (7) 153.
drawing and delivering mechanism, P (12) 278.
drawing mechanism, P (11) 249; P (12) 277.
method and app. for continuous production, P (12) 279.
method and app. for drawing and flattening, P (12) 277.
method of making, P (12) 279.
methods of drawing, P (10) 220.
silica, P (11) 250.
its properties, history and manuf., A (4) 71.
transparent, P (7) 155.
silvering, A (7) 152.
Simpson continuous leer conveyor, A (6) 122.
soda-lime, action of water and steam on, A (11) 246.
spun app. for production, P (4) 74.
staining and etching, A (11) 245.
standard milk bottles, A (6) 123.
steel for mold for, P (7) 155.
strain in, some current views on detection A (12) 276.
study of exudation on at high temps., A (3) 58.
surfaces, the structure of abraded, A (2) 30.
to tarnish or etch, A (2) 28.
tank blocks, columnar structure in sandstone after rapid htg. and cooling, A (10) 218.
fur. and air steam gas producer, ht. balance of plant, A (3) 59.
ht. balance for a 25 ton, A (3) 59.
tanks operg., life of, A (4) 73.
testing smalt blue, A (2) 5.
thermal expansion of soda-lead, A (11) 244.
thermo-resistant, P (11) 248.
tile for covering walls, P (8) 176.
training school opportunity for an American, A (7) 153.
transferring molten, means of, P (8) 178.
tubes, accurate by the Küpper process, A (9) 195.
tubing, clouding of table working in blowpipe flame, A (3) 59.
unbreakable, in Czecho-Slovakia, A (4) 72.
vessels, continuous cooling fur. for, P (6) 126.
viscosity of, effect of various constituents on, near its annealing temps., A (12) 276.
walls, rubbing of with glass rods, A (2) 28.
ware, manuf. of new, fur. for, P (12) 279.
watch crystals, manuf. of, A (5) 95.
white flint, manuf. of in a tank fur., A (6) 124.
window, a modern plant, A (10) 217.
wire, app. for making, P (12) 277.
wool, production, A (12) 274.
work opern., graphic check on, A (11) 246.
Glasses, anomalies in the expansion of, A (6) 125.
anti-glare, Sir William Crooks, historical, A (5) 96.
boro-silicate, a study of the melting and working properties of, A (12) 275.
chem. tests on, A (11) 245.
coloring with cobalt compds., A (7) 151.
conduction processes in ordinary soda-lime, A (5) 96.
detn. of sulphate, chloride and carbonate radicals in, A (11) 265.
diffusion of hydrogen and helium through silica and other, A (2) 14.
gage, testing of, A (3) 62.
ht. resisting, A (6) 125; A (7) 149; A (10) 218.
lime and magnesia, comparison of durability, A (3) 61.
optical process of mfg., P (3) 63.
Glassware annealing, an app. for controlling without pyrometers, A (3) 60.
autoclave test for, A (2) 27.
chem. action of various reagents on, A (3) 60.
cleaning compn. of matter for, P (8) 190.
criticism of use of autoclave in testing of, A (5) 92.
difficulties of interpretation of results, A (5) 92.
fire polishing of, A (4) 73.
lab. comparison of French, English, Ger. and Austrian, A (10) 217.
mechanism for conveying hot, P (8) 179.
pressed, mach. for making, P (8) 177.
table, decorating in colors, A (6) 122.
use of autoclave in testing of, A (5) 92.
fuel oil for finishing, A (5) 95.
Glauconite from the green sands near Lewes, A (3) 49.
Glaze, crystal with uranium, A (7) 142.
salt, stoneware, B (11) 259.
translucent hard faience, study of, A (7) 164.
vermilion with uranium, A (7) 142.
Glazed clay vessels, gilding of, A (8) 174.
ware, slip, A (8) 184.
Glazes, antimony yellow, A (5) 102.
blind, A (2) 21.
colored in the ceramic industry, A (8) 172.
uranium, A (7) 142.
white, for red burning clays, A (6) 126.
zircon for, A (7) 142.
Glazing bricks, A (6) 128.
Gold coating mixt. for glass or porcelain, P (8) 174.
Grading app. sieve, P (8) 190.
mat. separator for, P (8) 187.
of powders by elutriation, A (3) 47.
Graphite and amorphous carbon, nature of, A (5) 99.
Bavarian, A (5) 100.
crucible, P (7) 162, A (12) 282.
sepn. of by froth flotation method, A (4) 77.
some properties of, A (7) 161.
Gray iron melted elec., A (4) 79.
Grease for molds, A (2) 30.
Greek terra cottas, A (12) 272.
Grinding continuous, the Dorr Mill, A (6) 135.

importance of, A (2) 5.
mill, A (4) 77.
wheel dresser, P (9) 194.
test device, P (8) 172.
Gypsum, calcined, the hardening and the speed of soln., A (8) 189.
dispersoid chemistry of, A (2) 36.
energy of crystallization of calcium sulfate dihydrate, A (11) 239.
and gypsum products, tentative methods of testing, A (5) 90.
indus. definitions of terms relating to, A (5) 90.
plaster, hardened water-repellent, P (12) 274.
plastic, method for making, P (8) 189.
purification of, P (8) 184.
setting and velocity of soln. of burnt, A (6) 121.
tent. specif. for, A (5) 90.
withstands fire, A (2) 32.
Gyratory crushers, A (2) 33.

Hardening of calcined gypsum and the speed of soln., A (8) 189.
Hardness, of glass and crystal, proposed new scale for, A (11) 260.
tester, A (11) 260.
Health prob. of indus., A (8) 175.
Heat, action of on kaolins, clays, A (6) 138.
balance, of blast fur. and steel plants, A (3) 46.
gas producer, A (11) 246.
of glass leers, A (7) 153.
graphic method for computing, A (11) 268.
of a plant consisting of an air-steam blown gas producer and a glass tank fur., A (3) 59.
for a 25-ton glass tank, A (3) 59.
of combustion and work of dissociation, A (4) 79.
efficiency increase in cement burning, A (2) 35.
insulating mat., P (12) 289.
insulating mats. for elec. heated app., A (5) 104.
wares process of mfg., P (3) 55.
insulation, refrac., P (4) 76.
losses in fur., A (7) 169.
in glass manuf. and their control, A (2) 29.
resisting glasses, A (6) 125; A (10) 218.
Heavy clay, bldg. code for small houses, A (4) 74.
products, handling of, A (2) 24.
removal of limestone from clay, A (2) 26.
Helium and hydrogen, diffusion through silica and other glasses, A (2) 14.
Henley's Twentieth Century Formulas, recipes and processes, B (2) 41.
High temp. invest., A (9) 211.
meas., P (9) 204.
Historical sketch of the pottery indus., A (3) 45.
Hollow bldg. tile, tent. specif. for, A (5) 97.
block, shingle and wall construction, P (10) 222.
blocks and tile truck for, P (10) 222.
tile bldg. block, P (4) 75.
bldg. construction, P (9) 197.
and concrete floor slab reinforced in two directions, A (4) 75.
pilaster construction, P (7) 158.
tent. definition of terms relating to, A (5) 97.
wall construction, P (9) 197, P (12) 281.
Humidifying app. control, P (10) 227.
Humidity of air, app. for controlling, P (3) 48.
Hydraulic mining of silica, a marvel of mech. ingenuity, A (8) 175.
Hydrogen and helium diffusion through silica and other glasses, A (2) 14.
Hydrometer, P (3) 48.
a new form of, A (9) 201.

Igneous rock series, graphic study of, A (5) 107.
phys. chemistry of the crystallization and magmatic differentiation of, A (5) 107.
Induction furnace, A (5) 100.
high temp. investigation, A (9) 211.
for melting non-ferrous metals, A (2) 20.
Wyatt, P (6) 132.
Inductive elec. fur., P (6) 135.
Insulating brick, highly porous, A (12) 280.
cement, P (3) 53.
mat., ceram., P (6) 134.
mat. and processes, developments in Great Britain, A (3) 52.
Insulation, cement kiln, A (5) 101.
magnesia sheet for ht., P (3) 67.
Insulator connector, P (10) 226.
construction of, P (10) 226.
elec., P (8) 184.
equalization of strain on, P (9) 200.
line, P (12) 285.
Insulators, app. for shaping, P (11) 259.
Interlocking brick, P (4) 75; P (4) 76.
Iron, estn. of in ores and silicate rocks, A (11) 268.
oxides, color of, A (2) 14.
scale and rust, removal of from iron and steel, P (12) 274.

Jogging mach. for molding plastic, fluid, powdered and the like, P (4) 78.
Joint for articles of ceram. mats., P (9) 200.

Kaolin, action of ht. on, A (6) 138.
Canadian, A (5) 106.
loss of water and its behavior toward carbonates and alkaline earths, A (11) 266.
in Mexico, A (11) 263.
relation to synthetic aluminum silicates, A (11) 267.
rept. on mining operations, A (12) 286.
Kaolin, Die physikalisch-technische Untersuchung Keramischer, B (7) 169.
Kaolinite, chem. relations at high temps., A (2) 13.
Kaolins, clays, bauxites, loss on ignition and porosity of, A (4) 83.
countries producing, A (11) 264.
Keramik in Dienste von Industrie und Volkswirtschaft, B (10) 233.
Grundzüge, B (4) 87.
Keramite brick, A (8) 181.
Kieselguhr in Chile, A (4) 81.
mining, A (12) 280.
Kiln, P (11) 262.
brick, P (7) 167.
method of setting and burning, P (8) 181.
for burning brick, P (7) 167.
burning of downdraft, A (2) 3.
car tunnel, P (11) 262.
continuous, problems in burning Youngren, A (7) 166.
removable top, P (7) 168.
cylindrical, P (7) 167.
decorating, a rapid firing fur. or kiln, P (8) 185.
fire box automatic, A (7) 158.
for firing pottery, P (4) 81; P (11) 262.

furnace gas producer, comparison of coal consumption with hand fired, A (2) 5.
gas fired, P (7) 167.
Hoffmann continuous automatic feeding of fuel in, A (7) 166.
firing brick in, A (11) 251.
John Wright tunnel, A (6) 136.
pottery chamber, A (6) 137.
gas fired, P (3) 53.
roofing tile, P (3) 46.
rotary for htg. granular or pulverulent mat., P (6) 137.
for roasting bone black or fuller's earth, P (4) 81.
tunnel, P (4) 80.
car stopping device for, A (11) 262.
oil burner for, P (11) 263.
Kilns, annular, draft, resist. to and progression of the fire in, A (2) 7.
draft in, A (11) 261.
report by French Commission, A (4) 78.
some new forms of, A (3) 45.
thermometer for use in, P (2) 10.
tunnel, A (7) 166.
the firing and the ht. economy in, A (2) 4.
unloading, app. for, P (8) 179.
updraft burning in, A (5) 97.
use of hot air in continuous, A (2) 4.
whiteware, improvement of the firing procedure, A (11) 258.
Kinetic flocculation meters, A (2) 9.
Konimeter, notes on the evolution of, A (6) 135.
Küpper process, accurate glass tubes by, A (9) 195.

Laboratory Manual of Colloid Chemistry, B (2) 40.
Laterite dissociating, A (10) 214.
Leer, P (8) 176.
or annealing fur., P (7) 153.
conveyor for sheet glass, P (8) 179.
Simpson continuous conveyor, A (6) 122.
Leers, glass, various types of, A (5) 96.
ht. balance, A (7) 153.
Lime bricks, A (2) 32.
and cement, chem. reactions in the burning of, A (4) 71.
clays, working of, A (2) 26.
dissociation of clay by, A (2) 10.
ferric oxide and alumina sepd. from, A (5) 109.
free, in Port. cement clinker, A (11) 238.
fund. and chem. properties of commercial, A (2) 34.
hardening plaster or cement, P (7) 148.
kiln, continuous updraft vertical shaft, P (6) 121.
kilns, upright, A (11) 238.
or limestone in glass batches, A (5) 95.
and magnesia glasses, comparison of durability, A (3) 61.
mortars and cement, influence of hardening in steam under pressure, A (4) 71.
research, an untrodden field in, A (11) 239.
tent. methods of chem. anal. of limestone, quick and hydrated lime, A (5) 91.
specif. for the manuf. of sand lime brick, A (5) 91.
test on double burning, A (3) 65.
wet process of manuf., A (10) 216.
Limestone, dolomite and similar carbonate rock, charact. for the evaluation of, A (5) 91.
pebbles, removal of from clays, A (2) 26.
quarry, working of, A (3) 65.
Liparite, use of, in brick, P (7) 162.
Load test, detn. of softening temps. of refrac. under, A (3) 52.
Luster pottery, ancient and modern, A (6) 120.

Magmatic differentiation and crystallization of igneous rocks, the phys. chemistry of, A (5) 107.
Magnesia cement, caustic A (4) 70; A (5) 91.
effect of, on the resist. of glass to corroding agents, A (3) 61.
improvement in manuf. of, A (7) 148.
plaster, P (6) 122.
refrac., P (10) 226.
mat. for fur., P (6) 131.
sheet for ht. insulation, P (3) 67.
Magnesite caustic, calcined production of, in Scott fur., A (6) 121.
deposits of Grenville, Quebec, A (9) 209.
a new commercial refrac., A (7) 160.
production in Austria, A (12) 281.
rept. on the Manchurian, A (3) 52.
Magnesium chloride method of making, P (9) 206.
nitrate, process of producing, P (8) 189.
oxychloride cements, A (7) 147.
Malleable fur., bricks for, A (2) 18.
Manganese deposits, So. Africa, A (10) 229.
dioxide produced by chem. process in Calif., A (6) 139.
to selenium in glass, A (5) 96.
Marble-cement, P (3) 67.
Marl, Port. cement, made from, A (11) 239.
Masonry structure, P (7) 158.
Measurement of gas and liquids by orifice meter, B (5) 105.
Mechanical handling, A (2) 16.
Melting, elec. fur. for high temp., A (5) 100.
of glass, A (2) 26; P (3) 64.
point app., new form of, A (7) 165.
of potash feldspar, A (3) 61.
Mercury arc, a small high intensity, in quartz glass, A (5) 114.
Metallizing ceram. articles, P (8) 174.
Microcline feldspar, anal. of, A (2) 12.
Micropyrometer method for coal ash fusibility, A (6) 138.
Microscope, degree of firing detd. by, A (9) 210.
jointed, for lab. and workshop, A (2) 9.
super, and the Davon micro-telescope, A (5) 105.
use of, centesimal and rational analysis, A (8) 188.
Microscopic structure of common brick, A (11) 253.
study of cement clinker, reagents used in etching, A (7) 143.
Microscopical detn. of rock forming minerals and rocks, B (5) 108.
examn. of china clay, A (10) 226.
Mill, oversize return, P (8) 186.
Milling, ball and pebble, for pulverizing and mixing, A (2) 5.
tube, artificial pebbles for, A (2) 6.
Mills, conical, app. for entraining and removing fines, P (8) 186.
Mineral colors, A (2) 11.
pigments, A (2) 12.
Mineralogical methods, development of, A (8) 188.
Mineralogy, Dana's Text-book of, B (5) 108.
and petrology, the application of colloid chemistry to, A (5) 112.

Minerals, rock forming, essentials for the microscopical detn. of, B (5) 108.
Michell viscosimeter, A (5) 112.
Molding plastic, fluid, powdered and the like by jogging, P (4) 78.
sands, A (6) 130.
sands, factors influencing the grain and bond in, A (2) 7.
Molds, glass, P (3) 63.
Molybdenum coloring action on glass, A (11) 243.
resist. vacuum fur., A (5) 113.
Muffle fur., P (6) 137; P (10) 228.

Neodymium oxide, use of in boro-silicate glass to remove yellow tint, P (8) 178.
New Jersey's part in the ceram. history of America, A (8) 189.
Nickel, coloring glass with, A (3) 58.
salts, effect of on color, A (8) 183.
Nonslip quartz tile, P (8) 172.
tile, P (9) 200.

Oil burner, P (9) 202; P (9) 208; P (9) 209.
for tunnel kiln, P (11) 263.
Oil fired tilting crucible fur., P (6) 132.
fuel for clay drying, A (9) 211.
shale, A (4) 81.
retort, P (9) 212.
Opal, casing of, on flint glass, A (2) 26.
Optical glass, A (10) 217.
process of mfg., P (3) 63; A (6) 123.
its properties and production, A (2) 28.
Optical mineralogy, elements of, B (5) 108.
pyrometer, A (9) 202; A (11) 259.
pyrometry, personal equation errors, A (6) 135.
Ore roasting fur., P (9) 211.
Ores, app. and method for sampling, P (8) 190.
Orifice meter, meas. of gas and liquids by, B (5) 105.
Ornamented ware, P (12) 272.
Oxides, refrac., phys. chemistry of, A (9) 199.
Oxychloride cement, P (3) 67.
cement, refrac., P (3) 53.

Pennsylvania's resources, Smithsonian Institution's study of, B (5) 108.
Petrographic microscope, use of, in ceram. to exam. clay in raw and fired state, A (10) 221.
Petroleum, firing pottery kiln with, A (4) 79.
Phosphates in Morocco, A (7) 169.
Photoelastic observations showing diphasic nature of glass, A (11) 247.
Photomicrography, app. for, A (7) 165.
Physical chemistry of refractory articles, A (9) 199.
properties of clay, A (5) 110.
of porcelain, A (2) 22.
Physics in the ceram. indus., A (8) 187.
Pickling bath for iron, P (11) 242.
Pigments, mineral, A (2) 12.
pottery, P (2) 23.
Pilaster construction, P (7) 158.
Pistons, light metal for, A (3) 50.
Planer, shale, P (8) 187.
Plaster drying in humid air, A (10) 214.
of Paris, process of mfg., P (3) 67.
tech., A (11) 236.
wall board, P (6) 122.
Plastic clays, effect of electrolytes on, A (5) 108.
Plasticity of ceram. mats., A (9) 210.
of clays, test of, A (5) 110.
Plastometer as an instrument for process control, A (3) 50.
Polarized light, examn. of glass by, A (3) 61.
Polohalite, A (2) 27.
Porcelain bells in Ger., A (4) 84.
with beryl, P (10) 226.
burning of, A (4) 76.
with fuel oil, A (12) 283.
changes in phys. properties of, caused by varying Na to K feldspar and burning ht. treatment, A (5) 102.
Chelsea, B (4) 84.
chem., A (6) 133; A (11) 258.
crucible, P (6) 134.
elec., A (2) 23.
with beryl, P (3) 55.
insulation (III), A (11) 258.
modern handling methods in manuf. of, A (3) 55.
production of, A (9) 199.
some notes on, A (8) 184.
expts. on low temp., firing of, A (11) 258.
gold coating mixt. for, P (8) 174.
having appearance of granite, P (8) 184.
impervious, united by vitrification with porous alundum, P (7) 162.
influence of compn. upon properties of, A (2) 21.
insulator, app. for shaping, P (11) 259.
joint for ceram. articles and methods of producing same, P (4) 77.
manuf. in Indo-China, A (6) 134.
phys. properties of, A (2) 22.
pure white hard, expts. on manuf. of, A (7), 163.
spark plug compn., P (3) 55.
talc, P (9) 199.
tank and process of making the same, P (9) 200.
use of beryl, P (3) 51.
Porcelains, comparative examn. of, structure of Japanese and foreign, A (7) 162.
process of mfg. ignition plug and other, P (3) 55.
Porosity of kaolins, clays, bauxites, etc., A (4) 83.
Portland cements, defects in manuf. of, A (2) 35.
Pot arches, treatise on design of, A (12) 275.
clays, provisional specif. for, A (5) 94.
fur., improvements in the design of recuperative, A (6) 123.
fur., temp. in, A (7) 151.
Potash basin of Alsatian, formation of, A (6) 137.
from feldspar, a new process for, A (2) 11.
glass, testing smalt blue, A (2) 5.
indus., French, A (9) 210.
rapid detn. of, in acid-insol. silicates, A (7) 169.
soda content of, a simple method for the estn. of, A (2) 13.
Potassium carbonate, action of, on lead glass, A (11) 247.
Potentiometer, pyrometer, P (6) 136.
Pottery architectural, process of mfg. rough surfaced, P (3) 57.
body, note on cause of splitting, A (3) 54.
drying ovens, efficiency of various types, A (6) 133.
forming machine, P (12) 285.
indus. art, and its application to the, A (6) 120.
in China, scien. aspects of, A (6) 134.

historical sketch of, A (3) 45.
pyrometer applied to, A (6) 133.
kiln for, P (4) 81.
chamber, A (6) 137.
firing with petroleum, A (4) 79.
luster, ancient and modern, A (6) 120.
mach. for use in manuf. of, P (11) 259.
making in the blue Nile, A (3) 54.
ornamented, manuf. of, P (12) 272.
pigments, P (2) 23.
plant design, Cresent China Co., A (5) 98.
romance of, A (7) 142.
shops, atmospheric conditions in, A (6) 133.
tool for decorating, P (8) 184.
Powdered coal firing, recent developments of, A (5) 116.
as fuel in steam plants, A (5) 116.
fuels, the dangers of, A (3) 45.
Precious stones, artificial, A (2) 6.
synthetic, A (9) 211.
Preheating air for small fur. with water gas and with coal, A (4) 79.
Press, ceram., P (4) 78.
for forming briquettes, P (8) 186.
Pressure exerted in a press, method and app. for measg., A (7) 165.
Prochlorites of the corundum bearing rocks, A (10) 225.
Producer gas, clean, A (10) 228.
estimation of hydrogen in, A (12) 287.
as fuel for the glass indus., A (3) 62.
fur., A (2) 5.
Properties of some ball clays, A (2) 24.
Pulverizing, ball and pebble, milling, A (2) 5.
mill, P (9) 204; P (9) 212; P (12) 286.
Purification of clay, A (2) 11.
Pycnometer, new precision, A (11) 260.
Pyrex glass, A (4) 73; A (5) 92.
as a mat. for chem. plant construction, A (5) 96.
Pyrometer, app. for controlling annealing of glassware without, A (3) 60.
optical, A (9) 202; A (11) 259.
of the potentiometer type, P (6) 136.
Pyrometers as applied to pottery indus., A (6) 133.
radiation modern, A (2) 9.
Pyrometry, optical, personal equation errors, A (6) 135.

Quarry blasting, A (10) 229.
Quartz glass, A (7) 152.
glass, a small intensity mercury arc in, A (5) 114.
influence of fluxes on transformation of, A (11) 267.
refrac., A (6) 128.
sealing of elec. conductors in, P (3) 63.
Quebec, china clay in, A (2) 12.

Rabble-fur. construction, P (11) 260.
Radiation meas., a thermoelement for, A (9) 202.
pyrometers, A (2) 9.
Radiophragm htg. surface combustion, A (9) 208.
Recorder, carbon dioxide, A (2) 7.
Recuperator for glass fur. and the like, P (4) 81.
Reduction of oxides of metals of the chromium group, A (8) 189.
Refining clay, P (3) 51.
Refractive indices of liquids, a simple instrument for testing, A (2) 9.
Refractometer for detn. of solid and liquid subs., A (2) 8.
Refractory, alumina, P (6) 132.
article, organic binder, P (8) 182.
articles, contg. zircon, P (6) 132.
Bavarian graphite, A (5) 100.
calcined magnesite, A (7) 160.
carbon, impregnated brick, A (12) 282.
carbonaceous, for fur. walls, P (6) 132.
carbonized brick, A (8) 182.
cement, A (11) 254.
aluminous, A (5) 91.
cements, A (2) 20
ceram. ware, silica carbide, P (6) 132.
compn., P (10) 226.
of natural or artificial corundum, P (3) 55.
with silicon carbide, P (3) 53.
cupola lining, A (5) 100.
crucibles, P (3) 53.
fire arch, P (12) 282.
fire brick disintegration, A (10) 223.
fur. lining, P (12) 282.
glass mats. provisional specif. for, A (5) 94.
ht. insulation, P (4) 76.
Keramite brick, A (8) 181.
linings, slag action on A (6) 131.
magnesia, P (10) 226.
material, carbonized clay, A (5) 101.
for fur., P (6) 131.
for high temp. fur., P (6) 132.
a new, A (12) 282.
for zinc retorts, P (3) 53.
materials, A (7) 161.
materials, for crucibles of bauxite and bentonite, P (6) 132.
for fur. and ovens, A (3) 51.
prepd. with sulfite pitch, P (6) 132.
mortar, requirements of, A (11) 256.
oxides, phys. chemistry of, A (9) 199.
oxychloride cement, P (3) 53.
porcelain, process of mfg., P (3) 55.
products, process for making, P (7) 162.
rammed linings replace brick, A (8) 181.
self-hardening, P (8) 182.
shapes, dry pressing of, A (5) 99.
silica mat. of S. Wales, A (11) 255.
silicon carbide, bonding with ceram. mat., P (6) 131.
softening under load, a new tester, A (10) 223.
super, laminated article, P (8) 183.
Refractories, Blue Mountain, A (9) 198.
brick for forges and annealing fur., A (3) 56.
carbon brick, A (2) 17.
coeff. of expansion of, A (7) 159.
coke oven walls, construction A, (2) 18.
destruction of, A (9) 198.
detn. of softening temp. under load, A (3) 52.
durability of, A (6) 129.
for elec. fur., A (3) 52.
elec. resistivity at high temp., A (2) 18.
expansion of silica brick in coke ovens, A (2) 16.
fire clay, A (2) 15.
glass house, A (6) 129.
jointing mat. for, A (11) 255.
limitations of in elec. fur., A (3) 51.
for malleable fur., A (2) 18.
manuf. of fire clay, A (2) 15.
porous, P (3) 53.
progress in, hastened by elec. fur. development, A (3) 52.

properties and testing, A (11) 256.
quartz, A (6) 128.
recent developments, A (2) 15.
a review, A (4) 76.
Siemens fur. practice, A (2) 16.
silica brick, P (3) 53.
bricks, modulus of rupture, hot and cold, A (9) 199.
slagging test, tent. method for, A (5) 99.
spalling action, tent. test for, A (5) 98.
a study of, A (3) 52.
thermal capacity of bricks, A (9) 197.
condy., A (2) 15.
properties of, at high temps., A (7) 159.
under load at high temps., A (2) 16.
use of in gas works, A (9) 199.
zirconia oxide articles, P (3) 53.
Research agencies, federal and state, A (3) 46.
bureau lab., Standard Steel Car Co., A (5) 115.
earning power of, as demonstrated by experience of American Rolling Mill Co., A (5) 117.
for engineering societies, A (3) 46.
the importance of, in development of ceram. indus. of N. A., A (2) 5.
institute, Ger., for slag cement, A (6) 121.
lab. of Imperial Iron Works, rept. of, on refrac., A (7) 159.
stimulating, by organization, A (3) 46.
Resin, aqueous soln. of a resin, for deflocculating clay, P (8) 190.
from British Columbia, a fossil, A (5) 105.
Resistivity of vitreous mat , A (7) 153.
Resistor supporting means, P (9) 208.
Reverberatory fur., P (4) 81.
Rocks, chem. anal., B (5) 114.
and their origins, B (5) 108.
Roofing tile, burning, A (3) 56.
indus., Ishikawa prefecture, A (11) 257.
kiln, P (3) 46.
scumming on, A (9) 195.
tiles, an unusual experience with, A (8) 183.
Rotary kiln for roasting bone black of fuller's earth, P (4) 81.
Rosin, tar and turpentine, A (5) 105.
Ruby glass, A (2) 28.
Rust, removal from metals, P (11) 242.

Sagger investigation, A (5) 104.
Saggers, holes bored to save fuel, P (7) 165.
Salt cake *vs.* soda ash in soda lime glasses, A (5) 93.
glaze stoneware, B (11) 259.
glazing brick, A (6) 127.
a curious defect in, A (5) 98.
Sampling ores, app. and method, P (8) 190.
Sand, glass, New Zealand, A (5) 92.
lime brick, A (12) 280.
brick, manuf. of, A (2) 26.
brick, tent. specif. for quick and hydrated lime for, A (5) 91.
bricks, A (2) 33.
Sands, molding, A (6) 130.
Saskatchewan, ceram. work at Univ., A (12) 289.
clays, A (4) 82.
clays and new indus., A (10) 229.
Scientists' reference book and diary, B (5) 117.
Scleroscope, P (6) 136.
Screen, high frequency, P (9) 204.
Scum due to vanadium in clay, A (3) 57.
Scum, stain, efflorescence on ceram. products, A (12) 288.
Scumming on roofing tile, A (9) 195.
Selenium, decolorizing a soda lime glass in tank fur., A (6) 124.
influence of salt cake on decolorizing action of, A (2) 27.
to manganese in glass, A (5) 96.
production of colorless glass in tank fur., A (5) 94.
Separating granular solid mat., P (9) 204.
solid mat. of different sp. gr., P (9) 204.
Separator, P. (8) 187.
air, P (9) 206.
Sewer pipe, clay and cement, data on tests of, A (5) 98.
tent. specif. for, A (5) 97.
for required safe crushing strength of, A (5) 97.
Shale, app. for the combined solvent and destructive distillation treatment of, P (8) 190.
bituminous, burning, A (6) 127.
planer, P (8) 187.
a new way to use, A (7) 157.
process for treating, P (9) 212.
Shivering of terra cotta, notes on, A (2) 21.
Siemens fur. practice, A (2) 16.
Sieve centrifugal, A (3) 48.
Sifting testing mach., P (8) 185.
Silica acid sols, an invest. of the elec. properties of, A (3) 50.
brick, P (3) 53.
copper impregnated, A (7) 161.
expansion of, in coke ovens, A (2) 16.
smelting with reverberatory slags in copper blast fur., A (7) 161.
specif. for in glass, A (5) 94.
bricks, modulus of rupture, hot and cold A (9) 199.
Canada, A (10) 230.
deposits, Sweden, A (11) 251.
fusing, methods of commercial electrothermic process, A (5) 117.
glass, A (7) 152; P (11) 250.
its properties, history and manuf., A (4) 71.
hydraulic mining of, A (8) 175.
Silicate of soda, a bibliography, B (7) 170.
Silicates, anal., phys. chemistry of thermodecompn., A (12) 287.
chem. constitution of, A (2) 13.
constitution of, A (9) 210.
of strontium and barium, A (4) 83.
Siliceous, alumina compds., decompn. by, P (12) 288.
Silicon, amorphous and cryst. identity of, A (5) 113.
carbide, bonding with ceram. mat., P (6) 131.
in an elec. resist. mat., P (3) 53.
refrac. compn., P (3) 53.
refrac. ware, P (6) 132.
Sillimanite in spark plug porcelain, P (3) 55.
Silver, chem. deposition on mirrors, A (5) 93.
Silvering of glass, A (7) 152.
Slag action on refrac. linings, A (6) 131.
cement, Ger. research institute for, A (6) 121.
and dolomite cement, A (7) 144.
ferro manganese, bldg. block, P (11) 240.
Slagging action of refrac. mat., tent. test for, A (5) 99.
Slags and cement, the remelting of, A (3) 65.
Slip glazed ware, A (8) 184.
Slump test for concrete, A (9) 194.
Smelters, something better for enamels, A (3) 64.

Smoke, cause and prevention of, in boiler house, A (2) 4.
Soda ash *vs.* salt cake in soda lime glasses, A (5) 93.
content of a potash, a simple method for the estn. of, A (2) 13.
lime glasses, conduction process in, A (5) 96.
Sodium fluoride, manuf. of P (11) 265.
migration of, through glass, A (4) 72.
selenite, decolorizer of soda lime glass in tank fur., A (6) 124.
Sodium-silico fluoride, process of making, P (8) 189.
Solubility and decompn. in complex systems, glass and ceramic ware, A (3) 5^.
Solvay, Ernest, an appreciation, A (3) 46.
Spalling action, tent. method of test for, A (5) 98.
Spark plug insulation, P (4) 77.
Specific ht. of gases, A (2) 14.
ht. during melting and ht. of fusion of some metals, A (2) 12.
Specification, hollow tile, A (5) 97.
sewer pipe, required safe crushing strength of, A (5) 97.
sewer pipe, tent., A (5) 97.
Specifications, brick, A (7) 156.
for bldg. and sand lime brick in Austria, A (11) 252.
in Brit. glass indus., A (12) 275.
coal purchase, rational basis for, A (6) 139.
for glass refrac. mat., A (5) 94.
government, for all types of brick work, A (10) 222.
for gypsum, A (5) 90.
Splitting of pottery body, note on cause of, A (3) 54.
Sulfite pitch, use of in refrac., P (6) 132.
Sulfur compds., effect of, on cement, A (3) 65.
Standard milk bottles, A (6) 123.
Standardization of barytes, A (5) 110.
of filter presses, A (3) 54.
Steam generator, elec., A (5) 115.
plants, powdered coal as fuel in, A (5) 116.
Stones, artificial, manuf. of, P (12) 273.
method of making ware of, P (3) 55.
Stones, method of making ware of, P (3) 55.
Stoneware, acid and chem. proof, A (10) 226.
chem., unique development of, modern, A (3) 54.
for construction mat., A (11) 259.
mathematical consideration of properties, A (11) 259.
Stratton, Samuel Wesley, A (3) 46.
Strontium and barium, silicates of, A (4) 83.
minerals, A (5) 105.
Surface combustion with special ref. to recent developments in radiophragm htg., A (9) 208.
and interfacial tension, film method for measg., A (5) 112.
tension, influence of, on melting and freezing, A (11) 267.
tension in solids, A (5) 111.
Swelling of sand upon absorption of moisture, A (6) 139.
Synthetic aluminium silicate and its reln. to kaolin, A (11) 267.

Talc porcelain, P (9) 199.
Tank blocks, columnar structure in sandstone after rapid htg. and cooling, A (10) 218.
provisional specif. for, A (5) 94.
sandstone, columnar structure in, after rapid htg. and cooling, A (5) 94.
Tanks, operg. life of, A (4) 73.
Tantalum, its tech. uses, A (9) 210.
Telescoping electrode protector, P (9) 205.
Temperature regulator, a new type of automatic, and its application to ht. treating fur., A (3) 48.
Temperatures, high, app. for measg., A (2) 9.
meas. of, in rotary cement kilns, A (2) 35.
Terra cotta, notes on shivering of, A (2) 21.
Sigillata, an introduction to the study of, B (2) 40.
Terra cottas, Greek, A (12) 272.
Test, absorption of common brick, A (3) 55.
action of various reagents on chem. glassware, A (3) 60.
autoclave for chem. glassware, A (2) 27.
for durability of glass, A (12) 277.
ball app. for resiliency, P (6) 136.
grinding wheel, device for, P (8) 172.
of a hollow-tile and concrete floor slab reinforced in two directions, A (4) 75.
modulus of rupture of silica brick, hot and cold, A (9) 199.
of molding sand, A (6) 130.
powdered barytes, A (5) 110.
slagging action of refrac. mat., tent. test for, A (5) 99.
slump for concrete, A (9) 194.
spalling action, tent. test for, A (5) 98.
Tester, hardness, A (11) 260.
refrac. load, A (10) 223.
Testing abrasives, app. for, P (6) 136.
app. for glass containers, P (2) 31.
elec. resistivity at high temps., A (2) 18.
gage glasses, A (3) 62.
glassware, criticism in use of autoclave, A (5) 92.
use of autoclave method in, A (5) 92.
hardness, elastic column dynamometer for, A (6) 135.
mach., suggested methods for verification of, A (5) 105.
mats., Franco-Belgian Assn. for, A (12) 273.
refractive indices of liquids, a simple instrument for, A (2) 9.
refrac. under load at high temps., A (2) 16.
sifting mach., P (8) 185.
smalt blue, A (2) 5.
tent. methods, for gypsum and gypsum products, A (5) 90.
of trass, A (2) 36.
Tests, ball clays, American and English, A (5) 101.
of chem. glasses, A (11) 245.
clay and cement tubing, A (5) 98.
clay, rational anal., and use of microscope, A (8) 188.
to det. uses for clay, A (3) 44.
on the double burning of lime, A (3) 65.
durability of glass, a critical examn. of methods commonly employed, A (3) 60.
gases evolved from glasses of known chem. compn., A (5) 96.
ht. insulating mat., A (5) 104.
phys. properties of hard porcelain caused by sodium and potash feldspar under varying burning temps., A (5) 102.
softening temp. of refrac. under load, A (3) 52.
surface tension, measg. by film method, A (5) 112.

Texture brick, method of forming, P (10) 222.
Thermal capacity of bricks, A (9) 197.
conductivity of fire clay refrac., A (2) 15.
of liquids, insulators and metals, meas. of, A (2) 8.
simple app. for comparing that of metals and thin specimens of poor conductors, A (5) 113.
of white marble and neat cement, A (2) 35.
endurance formula for, A (7) 149.
ht. resisting glasses, A (7) 149.
expansion of soda-lead glass, A (11) 244.
properties of refrac. at high temps., A (7) 159.
units, chart for, A (5) 111.
Thermochemistry of cement vertical kilns, A (2) 33.
new data on, A (11) 268.
Thermoelec. processes, A (2) 19.
Thermometer for use in kilns, P (2) 10.
Thermometers, stand. spec. for lab., B (5) 105.
Thermo-resistant glass, P (11) 248.
Thermostat, P (2) 10.
elec. htg. and controlling app. for, A (2) 7.
a new thermo-regulator for, A (2) 8.
Tile, ceram. safety-tread, P (6) 134.
glass for covering walls, P (8) 176.
making, modern, A (11) 253.
nonslip, P (9) 200.
quartz, P (8) 172.
press, power, P (9) 203.
safety tread, P (6) 120.
Tiles, flat roofing, unusual experience with, A (8) 183.
Tiling block, P (4) 76.
Titanic anhydride, to control resist. of aluminous abrasive grains to fracture, P (12) 272.
Titanium, A (9) 209.
Treatment of clay, deflocculation with aqueous soln. of a resin, P (8) 190.
Tube milling, artificial pebbles for, A (2) 6.
Tungsten, color given to glass, A (11) 242.
Tunnel kiln and drier, car stopping device for, A (11) 262.
kilns, A (7) 166.
firing and the ht. economy of, A (2) 4.
Transformation of quartz, influence of fluxes on, A (11) 267.
Transmission of ht. effect of enamel on, A (11) 242.
Trass, increasing resist. of cement to sea water by the addn. of, A (2) 36.
testing of, A (2) 36.
Treating clay, P (3) 51.
Twelve-hour shift, A (2) 5.

Under glaze coloring, process of, P (3) 55.
Uranium, effect of, upon the fusibility of Zettlitzer kaolin, A (5) 110.
glazes, A (7) 142.
protoxide in Czecho-Slovakia, A (6) 120.

Vacuum drying plant, A (4) 84.
fur. for high temps., A (9) 202.
new rotary mercury pump, A (3) 48.
simplest mercury vapor pump, A (3) 48.
Vanadium in ceram. raw mat. and ware and its effect on the fusibility and color and formation of scum, A (3) 57.
color given to glass, A (11) 243.
recovery of, from its ores, P (8) 188.
Vapor press. of the alkali fluorides, A (2) 13; A (4) 82.
of arsenic, A (9) 210.
and sublimation curves for some important metals, A (4) 82.
Vermilion glaze with uranium, A (7) 142.
Viscometer, pocket, A (11) 260.
Viscosimeter, P (2) 10; A (9) 201.
improved MacMichael, A (9) 201.
Michell, A (5) 112.
a new, A (8) 188.
for very viscous subs., A (6) 135.
Viscosity of glasses near its annealing temps., effect of various consts., A (12) 276.
meas., effect of variable heat in, A (5) 111.
the thickness of liquid films formed on solid surfaces under dynamic conditions, A (5) 113.
Volume change of Port. cement and of concrete, A (2) 36.
Vulcanizers or other app., controlling heating of, P (3) 48.

Wall construction, P (8) 180.
Wares of Ming Dynasty, B (17) 230.
Warpage of refrac. clays, kaolins and porcelain, A (10) 221.
Waste heat, utilization of, from rotary kilns, A (2) 36; A (3) 66.
Water glass—a bibliography, B (7) 170.
Waterproof tile, P (6) 121.
Waterproofing cement, A (6) 120.
hardening agent of cement, P (8) 175.
paint for cement, P (3) 67.
reagent for concrete, P (7) 149.
Weathering of Belgian bricks, A (2) 7.
Wedgewood Josiah, note books of, A (7) 142.
White flint glass, manuf. of, in a tank fur., A (6) 124.
Whiteware bodies, factory prepn., and burning of, A (2) 22.
crazing of English, A (6) 133.
kilns, improvement of the firing procedure, A (11) 258.
Whitewares casting, symp. on, A (12) 282.
Witherite and barytes, A (5) 105.

Yellow etching compd., A (2) 23.
Yellow glazes, antimony, A (5) 103.

Zeolites and calcium aluminium silicate, A (9) 210.
the problem of the combination of water in, A (12) 287.
Zinc white, manuf. of, P (11) 265.
Zircon, refrac. articles contg., P (6) 132.
sepg. from undesired subs., P (8) 189.
for white glazes, A (7) 142.
Zirconia crucibles, P (3) 53.
Zirconium oxide articles, P (3) 53.
process for producing, P (8) 189.
pure, prepn. of, A (9) 198.
purification and anal. of, A (5) 111.
Zirkite ore, a preliminary study of, A (5) 111.
Zulkowski theory of relation between compn. and durability of glass, an extension of, A (3) 61.

AUTHOR INDEX TO BULLETIN

The reference number in parenthesis refers to the *monthly* number of the *Bulletin;* the number following this is the *page* number. The letter D preceding reference number indicates that the article is a Discussion (D); the letter O means that article is original (O).

VOLUME 2

Allen, F. B. Notes on burning refrac. with special ref. to control of labor costs, D (9) 305.
Arnold, H. C. Zirconia in enamels, D (9) 301–02.
Audley, J. A. The Ceram. Society, O (5) 140.
Aupperle, J. A. Zirconia in enamels, D (9) 302.
Aurien, G. Substituting oil for producer gas, D (12) 373.
Austin, A. O. Calcining of clays, D (3) 21–22.
Ayars, E. E. Notes on burning refrac. with special ref. to control of labor costs, D (9) 306.

Babcock, M. G. A study of the origin and cause of stones in glass, D (9) 297.
Bales, C. E. Producer gas for burning refrac., D (12) 376.
Banner, J. H. Voluntary adoption of stand. of quality, O (6) 191.
Bates, P. H. Specif. on whiting, D (6) 178.
Beecher, M. F. A note on the requirements of sagger bodies, O (8) 251.
Binns, C. F. The art of manuf. and the manuf. of art, O (4) 55.
Blake, E. M. The College Art Association of America, O (7) 203.
Bleininger, A. V. Sagger colloquium, D (8) 256, 258, 259, 262; Specif. on whiting D (6) 179.
Bridge, L. D. Sandblast castings to be enameled, D (12) 372.
Brown, Davis. Mech. methods from clay bank to mach., D (3) 25–28.
Brown, H. T. Tentative specif. for glass house refrac., D (3) 37–38.
Burgess, G. K. The Bureau of Standards wants co-operation, O (10) 336.

Cermak, F. Sagger colloquium, D (8) 263.
Christopher, A. B. Calcining of clays, D (3) 23–24.
Clare, R. L. Mold shop practice, D (9) 299.
Clark, E. Mold shop practice, D (9) 299.
Cox, I. F. The relative merit of ht. resisting alloys for enamel burning rack, D (2) 4.

Danielson, R. R. Transparent enamels, D (9) 300; Zirconia in enamels, D (9) 302.
Donahoe, F. W. The refrac. operative institute, O (10) 331.
Dressler, C. Artistic modern faience, D (9) 286–88, 292; Training of artists for the industry, D (8) 251.
Dressler, P. H. Producer gas for burning refrac., D (12) 375.
Drake, F. V. Colloquium on feldspar specif., D (7) 220.

Ellis, J. B. Training of artists for the industry D (8) 249.

Ferguson, R. F. The slag test and the action of slag upon silica, magnesite, chrome, diaspore and fire clay refrac., D (9) 307; Why is a Ceramic Society?, O (9) 309.
Flint, F. C. Colloquium on feldspar specif., D (7) 213, 224.
Forsythe, J. H. The mech. strength of glazing glass, D (9) 294.
Franzheim, C. M. Colloquium on feldspar specif., D (7) 215–17.
Frink, R. L. Refrac. for oil-burning fur., D (3) 19.
Fulton, C. E. Historical sketch of the manuf. of plate glass in America, O (4) 70.

Gates, W. D. Artistic modern faience, D (9) 289; Mold shop practice, D (9) 299; Training of artists for the industry, D (8) 251.
Geiger, C. F. Calcining of clays, D (3) 24.
Glenner, F. R. Zirconia in enamels, D (9) 301–03.
Goodwin, H. Colloquium on feldspar specif., D (7) 220; Sagger colloquium, D (8) 257, 259–62.
Grafton, C. O. Tentative specif. for glass house refrac., D (3) 36–37.
Grainer, J. Sandblast castings to be enameled, D (12) 370–71.
Greaves-Walker, A. F. Calcining of clays, D (3) 20–21, 23–24; Causes of bulges on struck-off fire clay shapes, D (5) 120–21; The flint clay situation in Pa., D (9) 304; Producer gas for burning refrac., D (12) 374.
Greene, J. F. Substituting oil for producer gas, D (12) 374.

Hansen, J. E. Sandblast castings to be enameled, D (12) 371.
Harvey, F. A. Calcining of clays, D (3) 22; The flint clay situation in Pennsylvania, D (9) 305; Silica cement, D (9) 298.
Hayes, A. Notes on burning refrac. with special ref. to control of labor costs, D (9) 306.
Hess, H. W. A study of the origin and cause of stones in glass, D (9) 297; Observations on the European glass industry, O (12) 362.
Hewitt, L. C. Notes on burning refrac. with special ref. to the control of labor costs, O (5) 109; *ibid.*, D (9) 305–7; The slag test and the action of slag upon silica, magnesite, chrome, diaspore and fire clay refrac., D (9) 308.
Hogensen, E. Sandblast castings to be enameled, D (12) 372.
Holmes, M. E. Research organization of the National Lime Association, O (5) 138.
Hornung, M. R. Sagger colloquium, D (8) 259.
Hostetter, J. C. Elimination of streaks in white opaque glass, D (3) 38; The mech. strength of glazing glass, D (9) 294; Pricing and costing graded product, D (5) 108; Sulphuring of

glasses, D (9) 295–96; Tentative specif. for glass house refrac., D (3) 36–38; Substituting oil for producer gas, D (12) 373–74.
Hottinger, A. F. Mold shop practice, D (9) 300.
Howat, W. L., and Williams, G. A. Testing barium carbonate for use in terra cotta bodies, O (6) 161.
Hull, W. A. Colloquium on feldspar specif., D (7) 223–24; Report of Committee on Stand., O (6) 151; Sagger colloquium, D (8) 253, 255–59, 261, 263.
Hunt, F. S. Colloquium on feldspar specif., D (7) 213, 215, 217, 223; Specif. on flint, D (6) 167–68; Specif. on whiting, D (6) 179.

Insley, H. E. The flint clay situation in Pennsylvania, D (9) 305; A study of the origin and cause of stones in glass, D (9) 296–97.

Jackson, C. E. Specif. on whiting, D (6) 178–79, 181.
Jaeger, E. J. Zirconia in enamels, D (9) 302; Sandblast castings to be enameled, D (12) 371–72.

Klein, A. A. Colloquium on feldspar specif., D (7) 220.
Klinefelter, T. A. Colloquium on feldspar specif., D (7) 213, 216; Mold shop practice, D (9) 299; Sagger colloquium, D (8) 260.
Krusen, I. A. Calcining of clays, D (3) 21, 24; The slag test and the action of slag upon silica, magnesite, chrome, diaspore and fire clay refrac., D (9) 308.

Ladoo, R. B. Colloquium on feldspar specif., D (7) 213, 219, 221–22; Specif. on flint, D (6) 169.
Langworthy, B. M. Mech. methods from clay bank to mach., D (3) 25.
Landrum, R. D. Transparent enamels, D (9) 300; Zirconia in enamels, D (9) 303.
Lindemann, W. C. Sandblast castings to be enameled, D (12) 371–72.
Littleton, J. T. Relative magnitude of radiation and convection in a muffle kiln, D (9) 303.

Manor, J. M. Colloquium on feldspar specif., D (7) 213, 215, 220, 223.
Manson, M. E. Zirconia in enamels, D (9) 302; Sandblast castings to be enameled, D (12) 371.
McDowell, J. S. Calcining of clays, D (3) 23; The flint clay situation in Pennsylvania, D (9) 304–05.
McGee, E. N. The slag test and the action of slag upon silica, magnesite, chrome, diaspore and fire clay refrac., D (9) 308.
Middleton, G. E. Inventions and patents—some phases of the patent law, O (4) 75.
Montgomery, R. J. A study of the origin and cause of stones in glass, D (9) 297.
Mueller, H. C. Specif. on whiting, D (6) 180.
Munroe, L. J. Zirconia in enamels, D (9) 302–03.

Northey. Producer gas for burning refrac., D (12) 375.

Oakley, W. W. Substituting oil for producer gas, D (12) 373.
Owens, F. T. The importance of figuring taxes into costs, O (12) 364.

Parmelee, C. W. Notes on the detn. of translucency of bodies, D (10) 325.
Payne, A. R. Elimination of streaks in white opaque glass, D (3) 38.
Pearson, J. C. The meaning and microscopic meas. of av. particle size, D (5) 121.
Pence, F. K. Colloquium on feldspar specif., D (7) 215–16; Sagger colloquium, D (8) 253, 260; Specif. on flint, D (6) 167–68–69; *ibid.*, D (6) 177–79, 180–81.
Poste, E. P. Zirconia in enamels, D (9) 301.
Potts, A. Mech. methods from clay bank to mach., D (3) 29.

Rhead, F. H. The American interest in Chinese art, D (5) 117; Relation of the Art Division to the other divisions, O (4) 59; Artistic modern faience, D (9) 289.
Rice, B. A. Zirconia in enamels, D (9) 302.
Richardson, W. D. Producer gas for burning refrac., D (12) 375–76.
Ritter, G. F. Sandblast castings to be enameled, D (12) 370.
Rodgers, J. P. Colloquium on feldspar specif., D (7) 214, 218, 222–23.
Rohrbach, C. H. Standardization of crucible sizes, O (7) 240.
Rosenhain, W. Relative magnitude of radiation and convection in a muffle kiln, D (9) 303.
Ross, D. W. Tentative specif. for glass house refrac., D (3) 29; Producer gas for burning refrac., D (12) 376.
Royal, H. F. Organization of Detroit Section, O (11) 348.

Salisbury, B. E. Colloquium on feldspar specif., D (7) 214–15, 217; Research—Its value to a mfg. executive, O (4) 52; Specif. on flint, D (6) 167–68–69; Specif. on whiting, D (6) 177–78, 180–81.
Sant, T. H. Colloquium on feldspar specif., D (7) 221.
Schramm, E. Colloquium on feldspar specif. Problems involved in writing specif. for feldspar, O (7) 210.
Schwetye, F. H. Calcining of clays, D (3) 24; Causes of bulges on struck-off fire clay shapes, D (5) 120.
Shaw, J. B. Colloquium on feldspar specif., D (7) 222.
Sheerer, M. G. Artistic modern faience, D (9) 288; Exhibition of industrially made tableware, O (7) 238.
Shively, R. R. Sulphuring of glasses, D (9) 296.
Silverman, A. Importance of pure research on glass in American universities, O (7) 206.
Simcoe, G. Specif. on whiting, D (6) 180–81.
Sladek, G. E. Colloquium on feldspar specif., D (7) 220; Sagger colloquium, D (8) 259.
Smith, R. G. Calcining of clays, D (3) 22.
Sortwell, H. H. Specif. on whiting, D (6) 176, 178–79–80–81.
Sproat, I. E. Specif. on whiting, D (6) 181.
Spurrier, H. Colloquium on feldspar specif., D (7) 215–16, 219–20, 222; Notes on the detn. of translucency of bodies, D (10) 325; Sagger colloquium, D (8) 262; Specif. on flint, D (6) 167–68–69; Specif. on whiting, D (6) 177–79, 181.
Staley, H. F. Transparent enamels, D (9) 301; Zirconia in enamels, D (9) 301; Sandblast castings to be enameled, D (12) 371.
Stevens, W. P. Mech. methods from clay bank to mach., D (3) 28.

Stone, R. W. The flint clay situation in Pennsylvania, D (9) 304–05.
Smith. Mech. methods from clay bank to mach., D (3) 25, 27.
Sweely, B. T. Sandblast castings to be enameled, D (12) 372.

Talbot, F. Calcining of clays, D (3) 25; Causes of bulges on struck-off fire clay shapes, D (5) 119.
Tefft, C. F. Mech. methods from clay bank to mach., D (3) 25–27, 29.
Thompson, F. S. Substituting oil for producer gas, D (12) 373.
Thrower, W. J. Sagger colloquium, D (8) 262.
Totten, G. O., Jr. Artistic modern faience, D (9) 288.
Totten, M. Artistic modern faience, D (9) 292.
Treischel, C. C. Colloquium on feldspar specif., D (7) 213, 216–19, 221–24; Specif. on flint, D (6) 168; Specif. on whiting, D (6) 176.
Turner, E. Specif. on flint, D (6) 168; Specif. on whiting, D (6) 178.
Turner, J. Classification and specif. of feldspar for use in various indus., O (12) 367.

Underwood, C. A. The analysis of high alumina products, O (6) 152.

Van Schoick, E. H. Causes of bulges on struck-off fire clay shapes, D (5) 119–21; Notes on burning refrac. with special ref. to control of labor costs, D (9) 305–06.
Vollrath, W. J. Zirconia in enamels, D (9)301.

Washburn, E. W. Pricing and costing graded product, D (5) 108–9; Tentative specif. for glass house refrac., D (3) 36.
Watts, A. S. Colloquium on feldspar specif., D (7) 213, 217–18, 220, 222–23; Notes on the detn. of translucency of bodies, D (10) 324–25; Sagger colloquium, D (8) 260–63.
Webb, R. S. Tentative specif. for glass house refrac., D (3) 37.
Webster, N. E. Pricing and costing graded product, O (5) 104; *ibid.*, D (5) 108–9.
Wenning, W. F. Zirconia in enamels, D (9) 301–02; Zirconia in sheet iron enamels, O (5) 102.
Wightman, E. P. The meaning and microscopic meas. of av. particle size, O (10) 323.
Williams, A. E. The disintegration of soda lime glass in water, D (2) 5; The mech. strength of glazing glass, D (9) 294; Specif. on whiting, D (6) 182; A study of the origin and cause of stones in glass, D (9) 297.
Williams, G. A. See Howat, W. L.
Wilson, H. The Ceram. Engineering Department of the University of Washington, Seattle, Wash., O (5) 125; Sagger colloquium, D (8) 261.
Witt, J. C. The disintegration of soda lime glass in water, D (2) 5.
Wry, T. A. Transparent enamels, D (9) 300.
Wyer, S. S. Memorandum on power situation in U. S. in million h. p., O (12) 377.

SUBJECT INDEX TO BULLETIN

Alloys, heat resist. for enamel burning rack, D (2) 5.
Alumina products, chem. anal. of, (6) 152.
Apparatus, expansion, (11) 352.
Art, the Amer. interest in Chinese, (5) 117.
the College Assn. of Amer., (7) 203.
Division, relation of to other div., (4) 59.
of manuf. and the manuf. of art, (4) 55.
Artistic modern faience, D (9) 286.
Artists, training of for the indus., (9) 249.

Barium carbonate for use in terra cotta bodies, (6) 161.
Bibliography, list of publications by U. S. Bur. of Mines on ceram. tech., (4) 93.
list of publications by U. S. Bur. of Stand. on ceram. tech., (3) 46.
Bowles, Oliver, Supt. new expt. sta., (7) 236.
Bulges, causes of on struck-off fire clay shapes, D (5) 119.
Burgess, G. K., Director U. S. Bur. of Stand., (6) 191.
Burning refrac., control of labor costs, D (9) 305.
with special reference to the control of labor costs, (5) 109.

Calcining of clays, discussion, (3) 20.
Cement silica, D (9) 298.
Ceramic eng., dept. of in Univ. of Wash., (5) 125.
mat., ref. list of A. S. T. M. Stand., (4) 93.
tech., list of publications on by U. S. Bur. of Mines, (4) 93.
list of publications on, by U. S. Bur. of Stand., (3) 46.
list of publications of, by Univ. of Ill., (4) 96.
Chemical anal. of high alumina products, (6) 152.
Chemistry, fourth conference of the International Union of Pure and Applied, (9) 317.
China plates, fund. principles in design of (4) 65.
standard tests for rept. of conference on, (9) 320.
ware summarized rept. of conference on elimination of excess sizes and varieties, (10) 337.
Chinese art, Amer. interest in, (5) 117.
Clay bank, mech. methods from, to machine, D (3) 25.
Clays, calcining of, D (3) 20.
Convection and radiation, relative magnitude of in muffle kilns, D (9) 303.
Cost control of, burning refrac., D (9) 305.
labor, notes on burning refrac. with special ref. to, (5) 109.
Costing and pricing, graded products, (5) 104.
Costs, importance of figuring taxes into, (12) 364.

Data, international critical tables of numerical data on physics, chemistry and tech., note on, (10) 335.
Design of china plates, fund. principles in, (4) 65.

Editorial, ceram. school curricula, (8) 245.
Ed. training in ceram. sci., (7) 198.
Equipment, manufacturers and mat. producers are research engineers, (5) 99.
He profits most who serves best, (9) 285.
Indebtedness, (11) 343.
Individualism in assocn. activities, (4) 49.
Operatives institute of refrac. manuf., (10) 321.
Our Silver Jubilee, (3) 15.
Pioneering beyond the rim, (6) 147.
Scien. research enters new era, (12) 359.
Technical investigation and research by trade assn., (3) 16.
Value of industrial research, (6) 148.
What service should be rendered by the Amer. Ceram. Soc., (2) 1.
Education ceram. in Univ. of Wash., (5) 125.
Enamel, burning rack, the relative merit of ht. resisting alloys for, D (2) 4.
sandblasting of castings for, D (12) 370.
transparent, D (9) 300.
Enamels, zirconia in, D (9) 301.
in for sheet iron, (5) 102.
Eskesen, E. V., high honor for, (7) 235.
Expansion app., autographic, (11) 352.

Faience, artistic modern, D (9) 286.
Feldspar, classification and specif. of, for various indus., (12) 367.
fineness of grinding, (12) 368.
for glazes, (12) 369.
specif. colloquium on, (7) 210.
tent. specif. for, (6) 163.
Fire brick, service classification of, by C-8, A. S. T. M., (8) 263.
Fire clay shapes, causes of bulges on struck-off, D (5) 119.
Flint, specif. covering purchase of, (6) 166.
Flint clay situation in Pa., D (9) 304.

Glass, disintegration of soda lime in water, D (2) 5.
house refrac. tent. specif. for, D (3) 29.
importance of pure research in Amer. indus., (7) 206.
indus., observations on European, (12) 362.
mechanical strength of glazing, D (9) 294.
origin and cause of stones, D (9) 296.
plate, historical sketch of the manuf. of in U. S. A., (4) 70.
pricing and costing of graded products, (5) 104.
specif. for silica sand for, (6) 182.
white opaque, elimination of streaks in, (3) 38.
Glasses, sulphuring of, D (9) 295.
Glazing glass, mech. strength of, D (9) 294.
Graphite crucibles, standardization of, (7) 240.
grinding feldspar, fineness of, (12) 368.

Heat resis. alloys for enamel burning rack, D (2) 4.
transfer through wall structures, rept. of conference on, (12) 392.
Hollow bldg. tile, rept. of conference on, (8) 282.
Hollow bldg. tile simplified, (12) 397.

Inventions and patents, (4) 75.

Kiln, muffle, relative magnitude of radiation and convection in, D (9) 303.
Kilns, fuel efficiency in, note on work of Bur. of Mines, (8) 277.

Law, patent, (4) 75.
Lime Association, organized for extensive research, (9) 318.
research organization of, (5) 138.
Lime, specif. for limestone, quicklime and hydrated lime, (6) 170.
Lind, S. C., chief chemist U. S. Bur. of Mines, (7) 237.

Mechanical methods from clay bank to machine, D (3) 25.
strength of glazing glass, D (9) 294.
Microscopic measurement of average particle size, D (10) 323.
of average particle size, D (5) 121.
Mold shop practice, D (9) 299.
Muffle kiln, relative magnitude of radiation and convection in, D (9) 303.

Oil burning furnaces, refrac. for, D (3) 19.
substituting for producer gas, D (12) 373.

Particle size, the meaning and microscopic measurement of, D (5) 121.
microscopic measurement of, D (10) 323.
Patents and inventions, (4) 75.
Pennsylvania, flint clay situation in, D (9) 304.
Plasticity, research fund at Lafayette Coll., (8) 276.
Plate glass, historical sketch of the manuf. of in U. S. A., (4) 70.
Pottery superintendents and foremen, organization of, (12) 387.
Power situation in U. S., (12) 377.
Pricing and costing graded products, (5) 104.
Producer gas for burning refrac., D (12) 374.
substituting oil for, D (12) 373.
Publication of ceram. investigations U. S. Bur. Mines, (4) 93.
on ceram. tech., U. S. Bur. Stand. list of, (3) 46.
Publications issued by Dept. of Ceram. Engineering, Univ. of Ill., list of, (4) 96.

Radiation and convection, relative magnitude of in muffle kiln, D (9) 303.
Refractory, flint clay in Pa., D (9) 304.
Refractories, burning of, control of labor costs, D (9) 305.
causes of bulges on struck off fire clay shapes, D (5) 119.
glass house, specif. for, (3) 29.
minutes of meeting of conference on specif. of, (12) 388.
for oil burning fur., D (3) 19.
operative inst. rept. of, (10) 331.
producer gas for burning of, D (12) 374.
service classification of fire brick, (8) 263.
silica cement, D (9) 298.
slag test on silica, magnesite, chrome, diaspore and fire clay, (9) 307.
with special ref. to the control of labor costs, (5) 109.
standardization of graphite crucibles, (7) 240.
Research, importance of on glass, (7) 206.
its value to a mfg. executive, (4) 52.
organization of National Lime Assn., (5) 138.
problems for thesis, (3) 45.
Research council, international critical tables of numerical data, note on, (10) 335.

Sagger bodies, note on requirements of, (8) 251
Sagger colloquium, (8) 253.
Sand blast castings to be enameled, (12) 370.
Sieve series, standard, (7) 239.
Silica cements, D (9) 298.
sand for glass, specif. for, (6) 182.
Slag test on various refrac., D (9) 307.
Soda lime glass, disintegration of in water, D (2) 5.
Specifications covering purchase of pulverized flint, (6) 166.
for feldspar, (6) 163.
feldspar colloquium on, (7) 210.
of feldspar for use in various indus., (12) 367.
for glass house refrac., (3) 29.
for limestone, quick lime and hydrated lime, (6) 170.
for refrac., minutes of meeting of, (12) 388.
for silica sand for glass, (6) 182.
for whiting, (6) 173.
Standard sieve series, (7) 239.
Standardization of crucible sizes, (7) 240.
Standards, Rept. Comm. on, (6) 151.
of quality, voluntary adoption of, (6) 191; (8) 278.
Stones, origin and cause of in glass, D (9) 296.
Sulphuring of glasses, D (9) 295.

Terra cotta bodies, testing barium carbonate for use in, (6) 161.
mold shop practice, D (9) 299.
Soc., announcement of official personnel, (6) 195.
Testing barium carbonate for use in terra cotta bodies, (6) 161.
Tests, anal. of high alumina products, (6) 152.
microscopic measurement of average particle size, D (5) 121, (10) 323.
notes on detn. of translucency of bodies, (10) 324.
slag, on various refrac., D (9) 307.
standard sieve series, (7) 239.
Translucency, notes on detn. of, D (10) 324.
Transparent enamels, D (9) 300.

Vocational course at Newell High School, (12) 386.

Washington, Univ. of, ceram. eng. dept., (5) 125.
Whiteware, specif. covering purchase of flint for, (6) 166.
Whiting, specif. for, (6) 173.

Zirconia in enamels, D (9) 301.
in sheet iron enamels, (5) 102.